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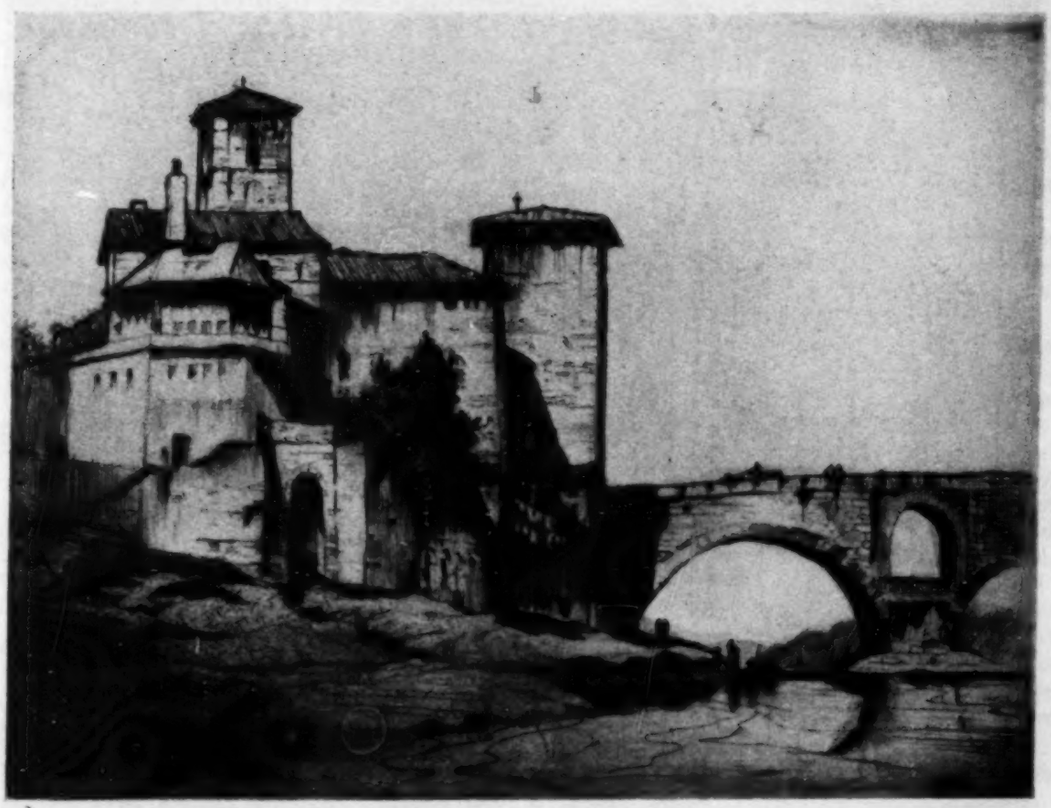


The Island in the Tiber.

From an etching by Mr. Lawrence Wright.

MEETINGS

Friday, *November* 28.

Institution of Structural Engineers (Midland Counties Branch). Mr. W. T. Benslyn on "Steelwork in Cinema Construction." At Birmingham. 6.30 p.m.

Incorporated Association of Architects and Surveyors. Annual Banquet and to meet the Lord Mayor and Lady Mayoress. At Stationers' Hall, E.C. 7 p.m.

Institution of Municipal and County Engineers. Scottish District Meeting. At Paisley. 2 p.m.

Institution of Mechanical Engineers. Informal Meeting. 7 p.m.

National Joint Council of the Plastering Industry. Annual Prize Distribution by Mr. D. Cromie. At the L.C.C. School of Building, Brixton. 7.30 p.m.

Saturday, *November* 29.

L.C.C. Central School of Arts and Crafts. Visit to Messrs. W. T. Lamb & Son's Works, Worcester Park. 2 p.m.

Monday, *December* 1.

Royal Institute of British Architects. Mr. J. R. Leathart on "Modern Cinema Design." 8 p.m.

Royal Society of Arts. Professor Charles R. Darling on "Modern Domestic Scientific Appliances." 8 p.m.

Wednesday, *December* 3.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher, P.R.I.B.A., on "French Mediæval Architecture." 6 p.m.

Royal Society of Arts. Mr. Sydney Perks, F.S.A., on "The Building of the Mansion House." 8 p.m.

Institution of Heating and Ventilating Engineers. Mr. E. G. Phillips on "The Cost of Operating Industrial and Private Electric Generating Sets compared with Public Supply." At 20, Hart-street, Bloomsbury, W.C.1. 7 p.m.

Thursday, *December* 4.

L.C.C. Geffrye Museum. Mr. C. H. B. Quennell on "Tudor Houses and Furniture." 7.30 p.m.

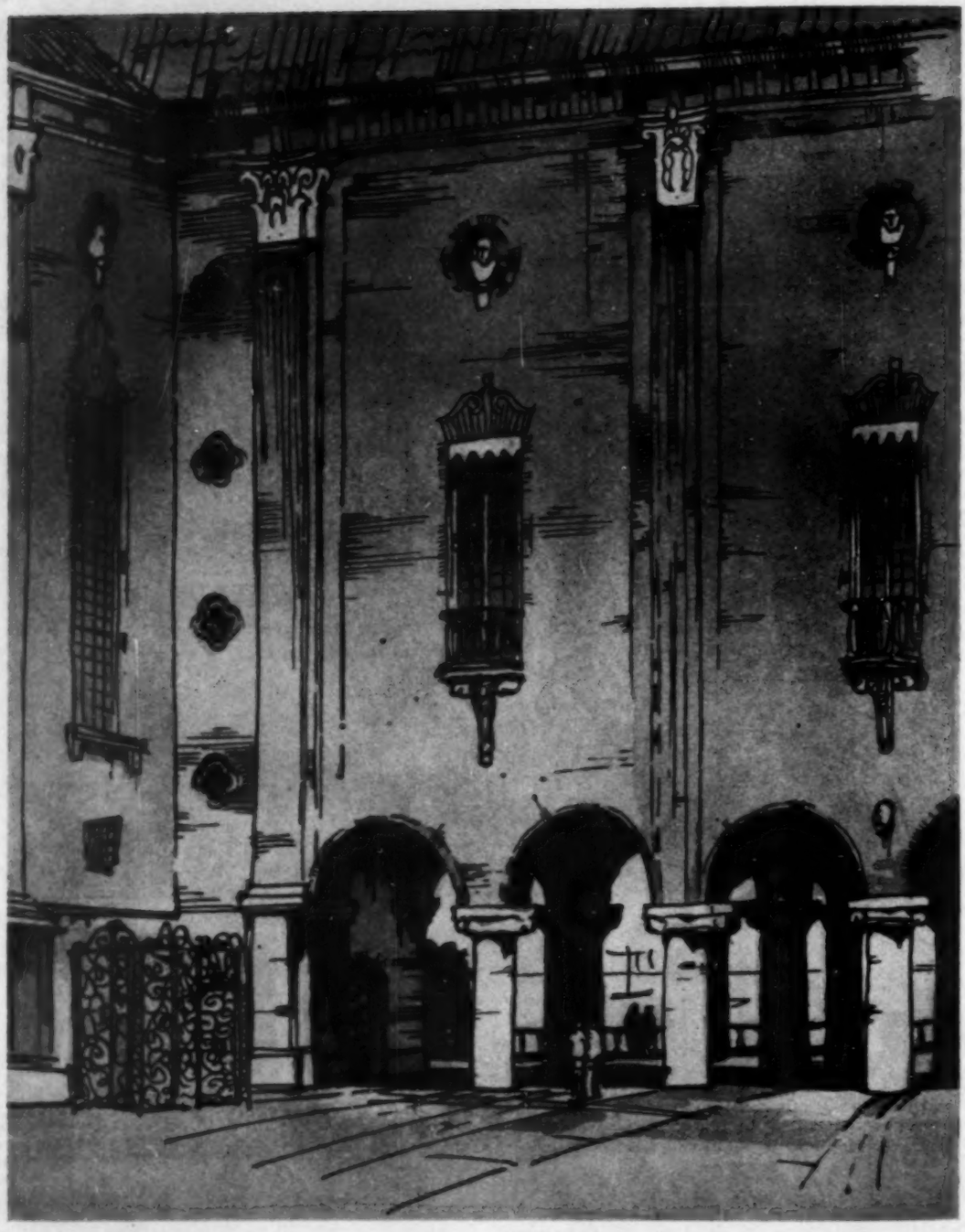
Society of Antiquaries. Ordinary Meeting. 8.30 p.m.

London Master Builders' Association. Annual Dinner. At the Connaught Rooms, W.C.2. 7 p.m.

West Yorkshire Society of Architects. Mr. W. Milburn, Jnr., on "Places of Entertainment." At the College of Art, Leeds. 7 p.m.

Friday, *December* 5.

Institution of Mechanical Engineers. Professor W. E. S. Turner on "Machinery and Methods of Manufacturing of Sheet Glass." 6 p.m.



Stockholm Town Hall.

From a water-colour drawing by Mr. Lawrence Wright.

WAR MEMORIALS.

THE British Government has suggested to other nations that no more wreaths should be laid upon the war memorials as an official obligation by their visiting representatives. The suggestion seems to have been received by the public with mixed feelings. It seemed to raise the question whether the time had come to forget the war and all its memorials, ceremonies and wreaths. Apparently there was no intention on the part of the British Government to call a time limit to the remembrance of the fallen; it merely wished to abolish the formal obligation of official envoys to lay a wreath on the national Cenotaphs as a matter of routine and etiquette. There was the obvious danger that the habit might become formalised and lapse into the insincerity of official duty. No one would wish to maintain a custom that was merely an enforced courtesy devoid of any emotional or spiritual significance.

The interpretation of the intention behind the Government note naturally gave rise to a number of opinions and points of view that are of interest to students of psychology and æsthetics. Those who are hostile to militarism and anxious for peace maintain that war memorials and the ceremonies connected with them have the effect of glorifying war in the minds of the younger generation. They would wish to bury old hatreds. On the other hand there are those who are of the opinion that for the peace of the world the remembrance of the world war is the greatest safeguard. They see danger ahead when there are no more flowers at the bases of the village crosses, when people pass them by without a look or a thought. These diametrically opposed views may never be reconciled, and consequently we may never understand any accepted meaning of our war memorials and their various forms and shapes.

The national impulse behind these memorials was bound to alter, and only posterity could judge dispassionately, not only their symbolism, but the material expression in their forms. It was obvious to a great many thoughtful people that a number of our memorials were decidedly ugly, and that no matter how ugly they were they carried a deep significance to those who surrounded the bases with flowers for remembrance. There was an emotional appeal in the ugliest memorial derived from the ceremony on Armistice Day; as a memorial it was transmuted into a tombstone. It does not come as a surprise, therefore, that there should be resentment in the minds of the public at any hint to abandon these ceremonies of the laying of wreaths for remembrance. Without them many of our memorials would cease to have any interest. By themselves they fail to impress us, either through their symbolism or their inherent beauty of form. They have no æsthetic appeal yet, the effect of all art, we are told, is to condition the mind of the observer so that he creates his own imagery.

It is probable that the general feeling to-day upon the whole question has altered since these memorials were designed and erected. Even then, there was no generally accepted meaning of the war—a meaning capable of monumental expression. The national impulse sometimes found its expression in simple village crosses, town halls, public baths, hospitals or village greens. We commemorated the great war by dedicating our memorials to the spirit of sacrifice or courage. We symbolised the whole range of virtues in erecting objects that were purely memorials or purely utilitarian memorials. Just as there was a complete absence of any accepted meaning of the war, so is there an absence of a definite and universal appeal in most of our war memorials. We can think of very few where all criticism is hushed, where the æsthetic and emotional appeals are associated for ever in beauty and impressiveness.

It would appear, therefore, that there is an obvious necessity to retain our ceremonies and wreaths, otherwise many of our memorials must go down to posterity as meaningless lumps of masonry and sculpture. Posterity will criticise them not so much for what they meant to us, but for their failure to create an æsthetic and emotional appeal that would be beautiful for all time. It is precisely here where the utilitarian memorial scores definitely. It serves its day and generation for some useful purpose, and its appeal is no other than the plain fact that it was erected to commemorate a national impulse. The building has no message in itself; the tablet may convey the spirit of thankfulness or a tribute to those who gave up their lives. It is not a symbolic appeal; it is pure prose recording a fact. It can never be misunderstood or neglected until the building ceases to perform its functions properly. The absence of wreaths or ceremonies can make no difference to the utilitarian memorial. Many arguments have centred on this question whether we had a right to present ourselves with things that we needed, or whether we expressed the spirit of sacrifice better by doing without these things and erecting something monumental, something that was definitely non-functional. In short, the argument is that the termination of a war is not an opportunity to present ourselves with useful things for our enjoyment. The difference of opinion regarding functional and non-functional memorials—using the word in the limited and utilitarian sense—has an important significance if our monuments as works of art are failures without the associations of the grave and the tombstone. They are failures only in the sense that without ritual their appeal to future generations must be limited. This is not an argument to the effect that all our memorials should have been utilitarian, and that we should have played for safety because of our inability to create sheer beauty of form. On the contrary, we had need of the finest that architecture and sculpture could give us. It is in quantity that we have failed.

If our architects and sculptors have failed as a whole to rise to the occasion the failure is undoubtedly partly due to this absence of a generally accepted meaning of the war. Without a fundamental idea all symbolism is more or less hopeless. The sculpture that can represent any number of virtues will not satisfy posterity, even with the help of the guide-book to explain the symbolism; it must impress by its own beauty regardless of any meanings that may have to be discovered at leisure. It is difficult to say offhand whether the æsthetic appeal should convey any particular emotional appeal, but certainly any æsthetic appeal is at once emotional. There are monuments without beauty that do convey a powerful emotional appeal. A cairn of stones on a mountain top makes a more direct appeal than many of our memorials that have been designed consciously to make an appeal.

The suggestion to other nations that there should be no more formal wreaths laid upon our war memorials may not be indicative of changed conditions and thoughts, but it holds a deep significance to those who can visualise our bare memorials. At once we remove a ritual or a symbolism that is a poignant reminder carrying a deeper significance than all but the best of our memorials can sustain. Throughout the length and breadth of the land thousands of memorials have been erected over a period of a few years, and we may have expected too much. The answer may lie in that. At least we can ill afford to abandon a ceremony that keeps many of our memorials alive in the minds of the people.

NOTES

Modern Architectural Design.

A DISCRIMINATING criticism of the present outlook on modern architectural design appears in a lecture at the Royal Academy on the new architecture, by Sir Reginald Blomfield. He points out that the first breakaway from our old traditions was to be found in the Crystal Palace of 1851, which great building, designed by a gardener, held its own with the work of the latest scientific German architects and was very much better than the attempts at design in glass and steel by that "enterprising person, M. Le Corbusier," to be found in the multitudinous publications of the new architecture. This new architecture had dashed off into the extreme of crude and unabashed brutality and total disregard of the amenities of town and country. We might know it by its works, the rejection of all traditional technique. The Orders once regarded as the foundation of architecture were an abomination to it. Sir Reginald went on to say how erroneous was the idea that efficiency necessarily led to beauty. Efficiency might be perfect and yet the result very far from beautiful. This fallacy, which was based on a very inadequate view of what constituted beauty in architecture, lay at the root of the new architecture and confused that art with the applied science of engineering, the scope of which was wholly utilitarian. Of course, it might be said that all art was rubbish as it did not achieve any immediately useful purpose. The new architects had not got as far as that in theory, though they made strenuous efforts to carry it out in practice. It is time for the sake of our students who will presently be carrying out modern architecture that we had some fearless and outspoken critics like Sir Reginald Blomfield.

The Case for Tradition

THOSE of our readers who do not admire the efforts of the extreme modernist—whether he deals with architecture, design or painting—will find much to amuse and to praise in the lecture which Mr. H. S. Goodhart-Rendel read to the West Yorkshire Society of Architects (reported on another page). Mr. Goodhart-Rendel foretells a reaction from our present craze for stark form and hints that unless those who are now our most advanced designers take heed of the human fondness for a little fluff upon the fabric of life, they may find themselves badly in the rear of a general retreat towards the well-padded dugouts of the old Victorian line. It is not too much to assume that architects who maintain in their outlook upon life and manners a sense of proportion are the most likely to put up buildings which possess the same happy characteristic.

Towards a New Building Code.

ON December 4, under the *aegis* of the R.I.B.A., will be held a meeting of various professional and trade bodies which will have as its aim the bringing into being of an Advisory Council which would review and report upon all aspects of building legislation with a view to making recommendations from time to time to the Ministry of Health and local authorities so that legislation may be kept up to date and be prevented from becoming too cumbersome, provided always that the public's safety be secured. The setting up of this Council is the direct outcome of a deputation from Members of Parliament and the representatives of the principal professional, building and commercial associations to the Minister of Health. A report of the proceedings at that meeting was published in our issue for August 8.

The Need for Simplification.

MR. C. J. KAVANAGH, of the British Steelwork Association (one of the parties to the deputation), in an interview on Tuesday with a representative of *The Builder*, explained the case for simplification of the existing Acts and by-laws. "The planning and putting into execution of a building scheme to-day," he said, "represents such an expenditure of money, time and trouble for the building owner, that when once a building is completed he says, 'Thank the Lord that's over,' not 'Now for the next.' There are far too many bodies and authorities whose business it seems to be to "regulate" the progress of a scheme. Every architect knows the time wasted in attempting to get various easements. The result is that no owner rebuilds unless he is forced to. There are cases of the newest London buildings having top floors that the London Building Act, framed thirty-six years ago, does not allow to be used. No big store or hotel is going to rebuild unless the site can be utilised to better advantage. At present, where rebuilding does take place, it is often necessary to put two or three floors underground to make the proposition an economic one. A tremendous amount of the business parts of London are ripe for rebuilding and it only wants the slightest encouragement to set this going."

Its Benefits to the Industry.

"WHAT this would mean to the building industry is obvious. The simplification and unification of design—in steelwork, partitions, fireproofing, etc.—would result in a flexibility which would do much to reduce building costs and lead directly to further building that would put building on an economic basis. The Advisory Council, when

Photo: Messrs. Burrell & Bardman, Ltd.

The Liverpool Cenotaph.

PROFESSOR LIONEL B. BUDDEN, M.A., F.R.I.B.A., Architect.
MR. G. H. TYSON SMITH, A.R.B.S., Sculptor.

(*See page* 927)

South Court.

Extensions to Queen Mary's Hospital, Carshalton.

Messrs. Paine and Hobday, F.R.I.B.A., Architects.

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MAIN CORRIDOR: SOUTH ELEVATION.

Staff Blocks: West Elevation.

South Court.

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constituted, hopes to get into conference with the L.C.C. with a view to the discussing of any new building code before such a code be submitted to Parliament. The building industry in the past has always lacked a representative body which could speak for the whole of its components in matters of this kind and as a result it has done nothing to preserve its interests when enactments, as the London Building Act, have been put into force. The Advisory Council will make it its job to see to such matters from now on—as a central organisation and mouthpiece."

Joint Regional Planning.

We understand that the London County Council are agreeing to contribute towards the expenses of the Greater London Regional Planning Committee, so that it may continue its work until March 31, 1932. One of the chief questions that has now to be decided is the proposal put forward by Dr. Raymond Unwin in his first Report, published a year ago, that a Joint Regional Planning Authority possessing certain executive powers should be substituted for the existing advisory committee. "It is admitted," says a correspondent, "that the questions to be dealt with are complex in character. Unfortunately there is a danger that the extremely controversial and political questions of the taxation of land values may be introduced. Indeed, only a few days ago a meeting took place in the House of Commons on this subject, attended by Dr. Raymond Unwin. Undoubtedly considerable opposition in all quarters, and especially from local authorities, will be forthcoming if such taxation, whether it be right or wrong in principle, be advocated in connection with regional planning. Up to the present, largely owing to the discreet guidance of Mr. G. L. Pepler, the Chief Town Planning Inspector of the Ministry of Health, regional planning on advisory lines has made magnificent progress. A false step now, and the clock will be put back."

Queen Mary's Hospital, Carshalton: Detail of West Entrance to Chapel.

(*See page* 912)

Two York Doorways

Two doorways in Petergate and Gillygate, York, respectively are unusual survivals of days when York gentry conformed to the custom of the Georgian period of going to the theatre, parties or other entertainments by sedan chair. It was a period of great architects—Vanbrugh, Kent, Gibbs, Campbell, etc.—whose achievements are still the source of much inspiration. Many of the larger mansions of England were planned and built at this time as well as numerous important public buildings which still serve the purpose of their erection. The general prosperity of the merchant class is seen in the large numbers of small town houses of mid-eighteenth century. Sedan chairs were first introduced into England in 1581, but it was 1619 before they came into general use, and a century elapsed ere this mode of conveyance reached its zenith of usefulness. The sight of long processions of gilded sedans preceded by link-boys employed to walk in front with flaming torches to illuminate the irregular, unpaved streets of York, passing along the way timbered gables and porticoes of many an ancient house, must have been picturesque yet withal a little weird too. When ladies and gallants in elegant dress arrived at their destination, the torch-bearers snuffed their evil-smelling flambeaux of tow by thrusting them into the trumpet-shaped extinguishers fixed for their convenience at the side of the better-appointed houses and places of assembly.

Doorway in Petergate, York.

Alport Height.

There must be thousands of people who regularly spend holidays amid the delightful scenery of the Derbyshire hills, valleys and glens and are greatly concerned with what might be the ultimate fate of some of those beauty spots. Modern commerce is ruthless in its destruction of beauty. Yet one would expect that in such a place as Derbyshire—where there is so much beautiful scenery—some place should be preserved for the public for all time. For years, however, the residents of and visitors to the many delightful Derbyshire beauty spots have not been able to take comfort in the thought that at least part of the beauty is for all time, but now there is joy! The National Trust has had Alport Height handed over to it through the kind action of an anonymous donor. The height, which is 1,034 feet above sea level, commands extensive views of beautiful country for miles around; on a clear day one can see as far as the River Mersey. It is one of the most attractive bits of Derbyshire scenery, and comprises about nine acres. Such gifts as this can go far to make a beautiful England, and one can only hope that many more desirable beauty spots that are within the vision from Alport Height may be acquired and preserved by the National Trust.

Doorway in Gillygate, York.

GENERAL NEWS

Professional Announcement.

On and after December 1 the address of Mr. P. T. Walters, F.S.I., and Messrs. W. E. Davis & Son, chartered quantity surveyors, will be 34, Red Lion-square, High Holborn, W.C.1. Telephone : Chancery 8171.

A Surveyor's Estate.

Mr. Charles P. Hall, Woburn, surveyor, left £10,346 (net personalty, £9,642).

Proposed Town Hall Buildings, Farnham.

The Farnham U.D.C. has approved plans submitted by Messrs. Falkner and Aylwin, F.R.I.B.A., of Farnham, for new town hall buildings in the borough for the Market House and Town Hall Co., Ltd.

An Artist's Estate.

Mr. Thomas Edwin Mostyn, R.O.I., R.W.A. (66), of The Anchorage, Preston, Paignton, Devon, artist, a well-known exhibitor at the Royal Academy, and whose work "Gethsemane" now hangs in Exeter Cathedral, left £1,019.

An Appointment.

Messrs. W. C. Ralph & Son, L.R.I.B.A., architects, 31a, King-street, Wigan have been recommended for appointment as architects for a new senior school at Swinton, near Manchester, to accommodate 1,400 children, for the Swinton and Pendlebury Urban District Council.

R.I.B.A. London Architecture Medal.

Members of the R.I.B.A. are invited to nominate claims for the award of a medal for a building completed within the County of London during the three years ending December 31, 1930. Forms of nomination are obtainable from the Secretary, R.I.B.A., returnable not later than February 28, 1931.

New Block of Offices, Liverpool.

It is learnt that a syndicate, under the direction of Sir Hugo Rutherford, has acquired property at 11-17, North John-street —now occupied by eighteenth-century buildings—on which it is proposed, by the end of 1931, to erect a seven-story block of offices with shops underneath. The architect to the company is Mr. A. E. Shennan, F.R.I.B.A., 14, North John-street, Liverpool.

Historic House at Battersea.

The Minister of Health has directed the Battersea Borough Council to preserve the Principal's House, St. John's College, Battersea, as "a work of architectural, historic, or artistic interest." The Council are opposed to the preservation of the house on the ground that it involves the loss of twenty flats. Last September the Society for the Protection of Ancient Buildings offered to purchase the Principal's House at the price paid by the Council for it, as they held it to be "of great importance and beauty." So far (according to Mr. A. R. Powys, secretary, S.P.A.B.) no reply has been received from Battersea Council, although the offer was made two months ago.

Hospital for Tropical Diseases.

New wards, laboratories, and a Manson clinical lecture theatre were opened at this hospital on November 20 by Captain Sir Arthur Clarke, K.B.E., Chairman of the Committee of Management of the Seamen's Hospital Society, who took the chair and received the guests. The building was originally erected in 1900 as an hotel, and was designed by Mr. Stanley Hamp (Messrs. Collcutt & Hamp), who is also responsible for the conversion of the premises for the purposes of the hospital and school when they were presented to the Seamen's Hospital Society by the British Red Cross in 1900. Mr. Hamp has also designed and supervised the present reconstruction. The builders were Messrs. Higgs & Hill. An address was read by Sir Walter Fletcher, K.B.E., Secretary of the Medical Research Council, on the work of the hospital and its value as a centre for clinical teaching and medical research in tropical medicine. Mr. Wm. Lunn, M.P., declared the new wards, laboratories and lecture theatre open, and the guests were invited to make a tour of the hospital. A vote of thanks to the speakers was proposed by Sir Leslie Wilson and seconded by Dr. Carmichael Low, F.R.C.P., Senior Physician, Hospital for Tropical Diseases.

Queen Mary's Hospital, Carshalton: Entrance to Nurses' Block from Corridor.

MESSRS. PAINE AND HOBDAY, F.R.I.B.A., Architects.

COMPETITION NEWS

Conversion into Municipal Offices, Long Eaton.

The U.D.C. proposes converting the Palace Theatre into municipal offices and to construct a covered market, at an estimated cost of £9,904. The Council has decided to invite architects to submit designs.

Premises and Offices, Macclesfield.

The Macclesfield Co-operative Society, Ltd., are proposing to rebuild their central premises and offices, Park Green, Macclesfield. A limited local competition has been held for the appointment of architect. Five designs were submitted, and the scheme of Mr. F. C. Sheldon, architect and surveyor, 7a, King Edward-street, Macclesfield, has been accepted. Tenders are now being invited.

COMPETITIONS OPEN.

	Particulars published in "Builder."	Sending in date.
Proposed Cathedral, Diocese of Guildford. Architects to submit for examination portfolios of drawings, photographs of their work to the Ven. Archdeacon of Surrey, Lloyds Bank-chambers, Guildford, before November 30	July 25	Nov. 30
Royal Society of Arts: £525 in prizes for new designs and uses for "Beatl." In three sections. Messrs. A. C. Bossom, Stanley Hamp and Prof. A. E. Richardson, FF.R.I.B.A., assessors. Conditions from Secretary, Industrial Designs (Beatl) Competition, Royal Society of Arts, Adelphi, W.C.2. ...	Aug. 22	Nov. 30
Council School, 800 children, in Clarence-street, for Burton-on-Trent. E.A. Mr. H. T. Buckland, F.R.I.B.A., assessor. Premiums, £150, £100, £50. Conditions from Mr. L. E. Burgess, Education Offices. Dep. £1.	Aug. 22	Nov. 30
Incorporated Association of Architects and Surveyors: Competition for model petrol-filling and service depot. Prizes of 50 gns., 20 gns. and 10 gns., besides prizes for laymen's suggestions. Messrs. A. W. S. Cross, E. H. Fryer and W. Groves, assessors	Aug. 22	Dec. 31
Proposed Medical Clinic, Tower Bridge-road, Bermonsey, S.E. Premiums of £250, £150 and £50. Conditions from Mr. E. Goff Clark, Town Clerk, Spa-road, S.E.16. Dep. £2 ...	Oct. 31	Jan. 10, 1931
New School at Seamer-road, for Scarborough Education Committee. Mr. Morris Thompson, F.R.I.B.A., is the assessor. Premiums of £100, £60 and £40. Conditions from Mr. R. Underwood, Director of Education, Huntriss-row. Dep. £1 1s.	Oct. 17	Jan. 17, 1931
Fire station, on site in Bethel-street, Norwich, for T.C. Limited to Norfolk architects. Conditions from Mr. Noel B. Rudd, Town Clerk, Guildhall, Norwich. Dep. £1 1s.	Oct. 31	Feb. 1, 1931
Public elementary school for Swinton and Pendlebury E.C. Conditions from R. Breckell, acting secretary, Council Offices, Swinton, Manchester. For architects within 15 miles of Manchester	July 25	–

Structural Engineers' Year Book.

The Year Book and List of Members for the Session 1930-31 of the Institution of Structural Engineers, now published, discloses the total membership of the Institution as 3,418. Besides a complete list of members, the publication contains information upon the method of application for membership and syllabus for examinations, and also details of the Portland House, the Brenforce and Dorman Long Travelling Scholarships, value each £300, and open to members of the Institution between certain ages. All are awarded in connection with the study of reinforced concrete or steel-frame construction. The Year Book (price to non-members 5s.) is obtainable from 10, Upper Belgrave-street, S.W.1.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Architects' Fees.

SIR,—Your admirable leader on this subject shows most instructively and logically the difficulties with which this problem is enveloped. Almost every new client presents a new situation for the architect in regard to this matter. In dealing with committees, boards or companies there is less difficulty, as a rule, than in dealing with individuals. To send certain individuals a copy of the R.I.B.A. Scale of Charges means that certainly you will not secure the commission to carry out their work. There are certain types of clients who like to play away with scheme after scheme and who ultimately abandon all intention of doing anything. To charge such clients by time and labour would in most cases mean a law suit.

Every architect of experience could state case after case where he received no remuneration, and if he had insisted even on receiving a modest return for his labour would have had very great difficulty in securing it. It is unfortunate that the code is so rigid, for it means that much work is lost by the conscientious member of the Institute.

Many of us have met the clergyman who thinks all work done for the Church should be honorary except his own, and from my own experience I am sure that many incumbents consider that the most an architect deserves for even highly decorative work is about the same rate of pay as a foreman house painter.

With clients who are always sending for us when a tom-tit's nest blocks the washhouse flue, I would suggest that we should get a retaining fee of say ten or twenty guineas a year to investigate choked drains, burst boiler pipes, frozen taps, and such like "piffling" details. In the provinces it is extraordinary what confidence clients place in architects regarding such matters, and it is no use sending a plumber or mason without first making a formal call and pretending to know all about every practical and technical detail. With the exception of doctors, I doubt if any other professional does so much without reward as the average provincial architect.

X. X.

"Restoration of Old Buildings."

SIR,—I wonder what the extreme modernists will have to say to the glowing words uttered by the Society for the Protection of Ancient Buildings in praise of the Anglo-American Oil Company's successful conversion of a Queen Anne building into up-to-date modern offices.

Lovers of England and English things will assuredly echo the words of praise. It was just after the Armistice that the finest architectural sites in England, and, to a lesser degree, Scotland and Ireland and Wales, began to be littered with buildings like cotton mills, square, straight, pseudo-efficient and undeniably hideous. No one, to be just, not even a modern poet, has ever claimed beauty for the new structures. All that has ever been said for them is that they were in the style of erections now going up in the United States, Sweden, Austria, Czecho-Slovakia or some other foreign country.

That is always enough for the sheep who are our modern generation. It is well that they should be reminded that Queen Anne, after all, is not dead.

ALFRED PRAGA, R.B.A.

Quantities.

SIR,—In the very instructive article by Mr. Taylor in your issue of November 21, he advocates the preparation of what he terms "a new bill of quantities in a different form" in order to facilitate the organisation of contracts, and goes on to describe how quantities are measured from drawings with meticulous accuracy by a builder's surveyor apart altogether from the official bill. It seems, therefore, that the quantities are measured twice, and one is tempted to ask whether or not there is waste here, and whether it would facilitate work if quantities produced by surveyors (whether chartered or not) were more in line with contractors' methods adopted for listing materials and for keeping costs, the latter referring principally to joinery works' costs. If such methods were adopted it would speed up contractors' office work, although, of course, checking would necessarily continue.

How often are builders' surveyors and foremen confronted with a bill in which everything is slumped and mixed up together, with no indication of "which is for where or what," so that as an instrument for helping to run the job it is entirely useless. Incidentally, I think that "Chartered Surveyors" protest too much. Perhaps, if we have not reached the zenith on the question of quantities, some of your other readers can say a few words.

FORWARD.

St. Gertrude.

SIR,—I should be greatly obliged if one of your learned hagiographical readers could give me some information regarding mediæval paintings of this Saint.

There were three Saints of this name. One was St. Gertrude, Virgin, Abbess of Nivelle, whose day is March 17. She was the daughter of Prince Pepin of Landen, Prince of Brabant, and died on March 17, A.D. 659, at the age of 33 years. Another was a German mystic, born at Eisleben, and created a Benedictine abbess in 1294. She was abbess for 40 years, and her death is given at the various dates of 1303, 1311, and 1334. The last date seems the most probable. The third St. Gertrude was a canoness of Altenberg in the diocese of Trèves, who was enrolled as a crusader and died on August 13, 1297.

It is the St. Gertrude known as "The Great" that I am after, and this title was apparently applied to the St. Gertrude of Nivelle. I thought I had seen most of the Saints on the East Anglian rood screens, but have no recollection of seeing a representation of any of the three above named. I am told there is one on the screen at Horsham, near Norwich, but have received no confirmation on this point.

WILLIAM DAVIDSON.

Perspective Projection Chart.

SIR,—The hyperbolic perspective projection chart recommended by Mr. John Swarbrick, which is illustrated in your issue of October 24 on page 706, is very interesting. Some years ago I made use of this identical form of chart for the inverse problem of finding angles of elevation and azimuth from a perspective drawing. The form of chart is, of course, necessarily always the same. It is referred to in a paper which appears in *The Illuminating Engineer*, 1923, Volume XVI., page 103, where my father and I originally suggested its use as a short cut to the labour of measuring and recording the large number of angles necessary for the preparation of diagrams used in investigations of daylight illumination.

This method we finally abandoned, since it was impossible to obtain the angular range necessary for this purpose upon a diagram of reasonable compass; but I am glad to note that Mr. Swarbrick has made use of the device for inverse problem. I think, however, that it will be found that in most cases the setting up of a perspective by the straightforward geometrical method involves far less labour than plotting it by angles of elevation and azimuth upon the hyperbolic web, except where the orientation is such that the vanishing points are at an inconveniently great distance from the centre of perspective.

It would perhaps be advantageous if the perspective distance were added to the chart, so that both methods could be combined. Actually the perspective distance for which the chart is drawn is equal to the distance from the centre to the 45 deg. division on the horizontal or vertical axis.

J. M. WALDRAM.

Competition Awards.

SIR,—I have been greatly interested in the letters you have published on this subject, but as an onlooker. As one concerned for Norwich as an ancient city, I frequently read the local Press, and I cannot help feeling that letters on competitions would be often more helpful were they written before the event. Hence the following:—

You have drawn especial attention to the competition for a fire station at Norwich, confined to Norfolk and Norwich architects, and I draw the following information from that and from the local Press.

The plan shows the proposed building to be at the rear of the future municipal buildings and as an appendage to those buildings. What a good many others beside myself are chiefly concerned about is the design and style of the new municipal buildings as the central architectural group in the Market Place, for the style of these buildings should be adopted for the fire station.

From what I saw months ago in the local Press, the assessor prepared a set of plans and elevations for the municipal buildings and submitted them to the Council. Since then it has been stated that the assessor "would advise the selection of a plan which would make it possible for the fire station, to say the least of it, not to be out of harmony." Does not this suggest that the assessor has already made up his mind as to the style of architecture to be adopted? And am I right, Sir, in thinking that the Council is bound to abide by the assessor's award, whatever it may be? Would it not simplify matters for the assessor to let competitors see his design for the chief buildings, otherwise it is possible that some architects may have seen these whilst others will not have had that advantage?

I am informed that architects' assistants often enter competitions. The advertisement does not say "practising" architects. Is it desirable that an architect's assistant should be in a position to work out a design based as far as advisable on his principal's ideas or, better still, join hands with an assistant in London who has seen the assessor's plans? I raise these points, being greatly interested in Norwich, but as an

ONLOOKER.

RECORDS IN STONE

SIR BANISTER FLETCHER, P.R.I.B.A., on Wednesday last, at the Central School of Arts and Crafts, gave a lecture on the Romanesque Architecture in France. He described how it was indirectly derived from Roman, and a series of different constructive expedients evolved during the 11th and 12th centuries in the various provinces leading up to the great cathedral-building or Gothic epoch, at first reluctantly in the south, but with more grace in the north. There were then few buildings in France, except those left by the Romans, and these largely influenced the main character of French architecture during the Romanesque period of the mediæval style.

These ancient churches showed the intertwined histories of English and French kings, when much of France belonged to England, and there were many architectural exchanges. France had not the marble of Italy, but good building stone, and had great vivacity and inventiveness. The great dividing line between peoples and styles was the Loire, and vaults and domes in the south, compared with the usurping arches and concentrated thrusts of the north, showed how the latter style, from its distance from Roman influence, grew more progressive in spirit, and led up to the building genius of the "Ile de France."

THE ARCHITECTURAL ASSOCIATION

THE EXCURSION TO SWEDEN AND DENMARK.

A MEETING of the Architectural Association was held at 36, Bedford-square on Monday, Mr. G. Grey Wornum (President) being in the chair; 108 members were elected, after which the Hon. Treasurer (Mr. C. Lovett Gill) presented his accounts.

Mr. H. Austen Hall, F.R.I.B.A., then followed with an account of the Association's recent excursion to Sweden and Denmark. The lecture was illustrated by a number of excellent lantern slides. The lecturer described the arrival of the excursion party at Gothenburg, where, he said, the local architects descended upon their English visitors with cars and char-a-bancs for a tour of the town. Gothenburg was first and foremost a seaport, and its docks and wharves were worth seeing, but he and the others were interested in architecture, especially new architecture, and went on at once to see the new parts of the town. The first slide the lecturer showed was of a school, designed by Arvid Bjerke, and built to accommodate 2,000 children. This, he said, was a very modern building in red brick laid with a very thick joint. The roofs were covered with pantiles. The covered ways were interesting, with their open timber roofs, and the entrance halls had rough plastered ceilings painted by the pupils. The general sense he had of the school was that it was not over-finished. The masculine touch of bricklayer and carpenter had not been obscured by the more feminine decorating trades. A hospital which had cost £4,000 a bed was the next building of which a slide was shown. This also was by Bjerke. Another of this architect's works of which a slide was shown was the Concert Hall at the Exhibition. In designing this Bjerke had collaborated with Ericson. It was fortunate, said the lecturer, that the English architects saw this building at night. It was better at night, for its lighting then was extremely good. The impressive lines of the interior were seen to best advantage. The beauty of the parabolic curves of the roof trusses was greatly enhanced by simple colour on the ceiling surfaces between the ribs, thus distinguishing the structural form from the filled-in surfaces. With a roof of this section it was important not to interrupt the lines, and therefore the lighting fixtures had been kept at the side and supplemented as necessary by floor standards.

The Arts and Crafts Museum, designed by Westman, was open to criticism because of its insufficient lighting in the daytime. Very small windows lighted very large rooms. It was, nevertheless, a charming brick building with an interesting entrance door. The scale was very finely studied. The interior, apart from insufficient lighting, was well planned, the rooms individually charming, and the exhibits displayed with superb taste and feeling. The large room on the ground floor had beautiful proportions, with a circular wood ceiling painted in the Nordic manner. This traditional painting, still used in the most modern buildings in Sweden, was a useful and timely reminder that the arts of our fathers need not be neglected because we wanted to be modern. Rather was it the strength of modern design that it could find place and use for whatever of beauty and fitness we had inherited.

The Masthuggskyreken Church, designed by Ericson, was in a wonderful position, overlooking the town and river, and was one of the principal monuments of the town. It was an interesting brick church with a fine tower. Internally there were rough plaster walls, the upper part finished with logs—one might say, whole timbers—used as a wall finish to correspond with the roof, but the walls were of brick and the roof was of concrete. Colour was not much used for the internal decoration, except in a very brilliant reredos in beige, pink and gold, and for the saints at the angles of the crossing.

Several slides illustrated the Carl Milles' fountain in front of the Art Gallery, which was a portion of the 1923 Exhibition. The Art Gallery was built in stock brick with very thick joints, the mortar coloured to match the brickwork. The ground floor was a sculpture gallery, with a granite floor and a painted ceiling in grey and black. The walls were white. The upper floor was a picture gallery. In spite of all that was said about functionalism, the section in this building bore no relation to the elevation. But it was a good elevation.

The lecturer showed a number of illustrations of dwelling-houses, and said there were many charming houses in Gothenburg in the neighbourhood of the Art Gallery. The natural features of the site were skilfully used, many houses being built upon the naked rocks, which were left appropriately exposed, brilliantly coloured rock plants making a garden wherever soil could lodge. Among these houses was one of Mr. Lallerstedt, Professor of Architecture in the Gothenburg Academy.

The party visited Kunjalf to see the castle which was being restored there, but this presented only archæological interests. The village of Kunjalf was typically Swedish, consisting of about 100 timber built houses. These houses did not harmonise with their surroundings. But the church (c. 1700) was interesting, with a great segmental boarded roof painted in the traditional manner. The carvings and fittings were fine, and the details suggested shipbuilders' work rather than that of the typical village craftsman.

Stockholm, said Mr. Austen Hall, was the real Mecca of the excursion. It was a really lovely place. The large amount of open water created magnificent sites for the principal buildings, and full advantage had been taken of the natural features. Not only were the buildings seen across the water under ideal conditions, but the high ground at the back gave an ever charming skyline. The Town Hall site was probably the best of all, and when one saw that remarkable building, one realised how much the site had influenced the architect's design. So great, indeed, had been the glamour of this unique position in the city that when Ostberg was asked to design the Town Hall and Municipal Court elsewhere, he declined to do so. His ideals had been maturing in his mind for many years, but always for the one and only site that he thought worthy of the great City Hall. From 1901 till 1923 he had been engaged in one way or another upon the design, and out of this period twelve years had been spent upon the building. There was a Swedish saying to the effect that "God did not create hurry," and the earliest designs for the Town Hall gave no idea of the ultimate result, for during the years occupied in the conception and in the building, the God who did not create hurry had moulded the thought of the architect into finer forms, giving him a constantly increasing and expanding vision of the possibilities before him. This was no new experience, as most of our cathedrals bore witness, but at the present day, when we were submerged in vast quantities of commonplace work all done in a hurry, it was salutary to consider the few outstanding successes in the world of modern architecture. His first impression was one of complete harmony combined with endless invention in the diversity of details. When examined more closely, the building was found to be of a mediæval character, one that owed nothing to the classical fashions of the day, and yet was a veritable storehouse of the modern art of Sweden. A great meeting-ground for the best artists of the country had been provided in this unique structure, and there was evidence that the individual artists had been given great freedom in the development of their particular contributions.

Speaking of the Blue Hall, the lecturer said the treatment of the brickwork was unusual. The bricks themselves were very large, and not by any means what we should consider a good facing brick. They were extensively chiselled on the surface by the use of pneumatic tools. It had been originally intended to plaster the walls and paint them blue, but the effect of the rough surface of the bricks was so pleasing to the eye that the walls had been left in that condition. One curious result was that, although called the Blue Hall, it was, in fact, a red hall.

Many other buildings were illustrated by the lecturer, who described the city library, by Asplund, as being finely planned and an interesting exposition of functionalism. A Chinese pavilion in the grounds of the Palace of Drottningholm had lovely apartments in perfect preservation. The Swedish Match Factory was notable for the simplicity of its front and the splendour of its entrance. It might be compared with some of the great new buildings on the Embankment, but was built in ordinary brick slurried over, all detail being concentrated on the court-yard and entrance. The board-room furniture, by Malmsten, was interesting.

The Hogalids Church, by Tengbom, was another superb building in brick, with a very simple interior that was entirely successful. Here again was a slurried brick interior, with brilliant relief in places, and a great certainty of touch in placing colour and ornament where it was at once effective and significant.

One incident of the excursion was a visit to Carl Milles, the sculptor. The power of Milles' work was that he saw in nature a subtlety and humour that needed no artistic convention to explain them or embellish them. He put into the work something that he saw, something that was life, but inapprehensible by most of them until the genius of a Milles made it plain.

The Exhibition, said the lecturer, was the work of Asplund, and considered the last word in functional design. To the casual visitor the entrance was not impressive, the planning was not axial or direct, and the buildings, with the exception of the restaurant, were just large stalls or booths for the display of the productions of the country. One looked in vain for any dominating feature or vista, or focal point, and the magnificent front to the lake was practically wasted in its relation to the buildings themselves. But the Exhibition was nevertheless extremely gay and cheerful owing largely to the colour and movement of the innumerable flags, in which the lovely blue and yellow of the national colours predominated. The only serious building was the Paradise Restaurant, in a central position. This was very charming inside, a feature being the glass balustrades to the galleries, against which the diners' heads and shoulders showed in silhouette like black marionettes between tiers of white light.

After Sweden came a visit to Denmark, where the chief thing of architectural interest was the Police Court, designed by Professor Kampman. Being in a poor part of the city, the elevations for this building were very simple. Brick was used, finished with the favourite grey slurry composed of lime and water. The plan was extremely fine.

Professor C. H. Reilly, moving a vote of thanks to the lecturer, said it was an extraordinary and interesting thing to see that during the last 20 years, apart from the functional work of some of the younger men, the Swedes had been doing the same kind of architecture as we had attempted, but had used those motives to make such elegant buildings as had been shown on the slides. The Swedes used those motives with far greater freedom than we. In Sweden one did not see stuff literally translated from the books of Vitruvius or from the tracery of a Gothic cathedral, as was the case here.

A number of other speakers followed, among them Mr. Bo Hellstrom (hon. secretary of the Anglo-Swedish Society), who said that the Swedes and English had much in common.

"THE NEW ARCHITECTURE"

A LECTURE on this subject (illustrated by lantern slides) was given by Sir Reginald Blomfield, R.A., at the Royal Academy of Arts, Burlington House, Piccadilly, W., on Thursday, November 20. Sir Frank Short, R.A., occupied the chair. Sir Reginald said "The New Architecture," or "Modern Architecture," as its advocates often called it, to the exclusion of about nine-tenths of the best work now being done, was difficult and complicated, and yet to some extent it was only another version of the old quarrel of "Ancient versus Modern," that divided French opinion over 250 years ago, and the issue raised was whether (1) The Mistress Art was being born again, (2) had completely lost her head, or (3) might be suffering from a temporary aberration from which she might yet recover. The point was worth investigating, because whether we liked it or not, this new development had spread rapidly on the Continent in the last few years with some very startling results. It was widely advertised as the one and only gospel of artistic salvation. Large compilations of photographs were constantly being published, indeed were being let loose on an unsuspecting public and our imperfectly-trained architectural students; and the traditionalists were so content with their old ways, or so much immersed in their multifarious works, that they might wake up one morning to find the foundations undermined, and themselves buried under the ruins of what they had supposed to be an assured position.

He did not believe that such a great and permanent art as architecture could be finally lost in the quicksands of Bolshevism unless all our civilisation went down into the ruck, but it was well to be watchful and critical. Art, of course, could not stand still. The conditions of life and its demands inevitably changed, and the extraordinary developments of applied science in the last fifty years had introduced elements that had to be reckoned with in the design of buildings. In addition to this, the cataclysm of the War had thrown everything into the melting-pot—literature, art and music. People were obsessed with the idea that the War had permanently changed all the conditions of life; they forgot that there had been great wars before, and probably would be again; and to insist that there must be a violent change all round before a stable equilibrium could be restored, seemed to him to be only the outcry of panic fear. It was forgotten that, unlike those countries in which the new movement was most popular, ours was a very old civilisation, with a character of its own, unique in its way, and we were not likely to abandon lightly instincts and traditions which were ingrained in our people, even if not consciously realised. It was significant that the wildest efforts of the new architecture were being perpetrated to-day in Finland and, of course, Russia.

Showing a slide of the "House of Labour," at Moscow, the lecturer said it had been deliberately designed by M. Golosov on the model of a dynamo, and the largest and most dominant part of this building was designed as an enormous cog-wheel. Showing a slide of the Observatory at Potsdam, by Herr Erich Mendelsohn, he said it looked like the gun-turret of some nightmare battleship, with the lower part of it shaped like a ram, the windows designed to resemble the embrasures of eight-inch guns.

The new architecture had its origin in Germany and Austria, but there were certain antecedent conditions elsewhere that led up to it. It was rather curious to think that the first violent break with tradition was made in England at a time when the Romantic and Revivalist movement was completely paramount, and it was made in the Crystal Palace, built for the Exhibition of 1851, when some of the fantastically-foolish buildings designed in Neo-Gothic were being executed everywhere. This was followed by the skilful use of steel construction introduced by the French engineers, light steel trussed roofs for carrying great spans, such as that of the Machinery Hall in the Paris Exhibition of 1889. It was just about 80 years ago that Joseph Paxton designed the immense building of the Crystal Palace, all in glass and iron. If they compared that building with the steel and glass buildings erected in Germany within the last few years, it would be found that that great building, designed by a gardener, and ridiculed for generations, held its own with the work of the latest scientific German architects, and was very much better than the attempts at design in glass and steel by that enterprising person, M. Le Corbusier, which would be found illustrated in the multitudinous publications of the new architecture. Indeed, Herr Bruno Taut, an enthusiastic advocate of the new architecture, who had written an excellent book on it, and was himself an able architect, specially referred to Paxton as its first inventor.

By "The New Architecture" he did not mean contemporary architecture that moved freely and boldly in more or less traditional lines, such, for example, as the work of Westmann, Tengbom, and Ostberg in Sweden, and several able colleagues of his own in England, young as well as old. The New Architecture that he referred to was that movement now widely recognised on the Continent as such, and widely prevalent in Germany, France and Holland. It had entirely superseded the "Pompier manner" of the Opera House at Paris, with its unconvincing parade of magnificence, and a very good thing too. But it had dashed off into the opposite extreme of crude and unabashed brutality and total disregard of the amenities of town and country. His audience might know it by its works, the rejection of all traditional technique. The Orders, once regarded as the foundation of architecture, were an abomination to it. If a column was used at all, it had to be just a plain cylinder, without cap or base, diminution or entasis. Where the enlightened architect would be content with a rectangle, the new architect made his angle either obtuse or acute. In Berlin there was a series of two-story houses designed on a zig-zag plan, instead of the straight line of the normal street front. The broken facades were said "to give privacy to the individual homes." They gave rather an unfortunate suggestion of two or three bungalows having got mixed up with each other, and the effect was that of a disorderly rabble instead of the ordered dignity of architecture.

It was a cardinal point with the new architecture that, as Herr Taut put it, "fulfilment of purpose is the task of the architect," and that the aim of architecture was the creation of "perfect, and, therefore, also beautiful, efficiency." Among the instances given of this efficiency were a hangar for an airship in France, a silo for cement, grain elevators at Buffalo, U.S.A., and a refuse destructor at Cologne. This at once raised the vital questions of purpose, efficiency and beauty. The underlying assumption was that anything that answered the immediate purpose for which it was created must *ipso facto* be beautiful. But there was a dangerous confusion of ideas in this conversion of efficiency into terms of beauty. As thoughtful persons we undoubtedly derived satisfaction from machinery that fulfilled the purpose for which it had been constructed, but this was an entirely different feeling from the thrill that we felt instantaneously and spontaneously from beauty in any shape, beauty of the human form, of the sea and land, of cloud and sunshine, of noble buildings and great works of art. As a French writer once said, these alone set ringing within us that little bell of emotion which was different in kind from the conscious intellectual satisfaction we derived from efficient machinery.

Efficiency might be perfect and yet the result very far from beautiful, and it seemed to him that this fallacy, which was based on a very inadequate view of what constituted efficiency in architecture, lay at the root of the new architecture, and confused that art with the applied science of engineering, the scope of which was wholly utilitarian. The architect was concerned with something more than the plain facts of construction, and whereas the engineer was concerned with construction and little else, the architect started further back with a plan and ended further on with what he put on it. The "New Architect" ignored this vital distinction.

Of course, it might be said that all art was rubbish, inasmuch as it did not serve any immediately useful purpose, but he did not think the new architects had got quite as far as that in theory, though they made strenuous efforts to carry it out in practice. In their zeal for efficiency and fulfilment of purpose they had confused engineering with architecture, and their enthusiasm for motor-cars and liners had led them to confuse statics and dynamics and landed them in a hopeless attempt to apply forms developed by the machinery of motion to immovable objects.

The New Architecture had become a stunt, the most fatal of all obstacles to real and permanent progress. The movement was based on a confusion of the functions of the architect and engineer, and on a narrow formula of the fulfilment of purpose in architecture, which excluded from the purpose of architecture that æsthetic gratification which had been one of its essential qualities since the earliest dawn of civilisation. Moreover, owing to the deliberate neglect of the study of antiquity, the range of imagination and inventive ability in the New Architecture was extremely restricted, and in some of the architectural schools the fatal mistake had been made of discouraging the study of any but contemporary architecture. Students were thrown headlong into the melée without any independent standard of judgment, and with a wholly inadequate architectural vocabulary.

Port Development at Fleetwood.

A sum of approximately £750,000 is shortly to be spent by the London Midland and Scottish Railway Company on constructional works at Fleetwood Harbour. To obtain powers to proceed with the works a Bill is to be promoted by the company in the present Parliamentary session.

Proposed Steel Bridge at Marlow.

The suggestion of a steel bridge over the River Thames, costing £45,440, to replace the existing Marlow Bridge, has been reported upon by the Highways Committee at the Bucks County Council at Aylesbury. Since the last meeting of the Council the County Surveyor has been approached by the British Steelwork Association, with a request that they should be permitted to submit a design and estimate for a new steel bridge in the place of the existing bridge, and as the Association, according to the *Bucks Herald*, agreed to do this without any obligation or expense on the part of the County Council, their offer was accepted. The designs and estimates prepared by the British Steelwork Association were submitted to the committee at their last meeting, from which it appeared that a new steel bridge in a pleasing design could be erected at a cost of £45,440, compared with £55,000 for a ferro-concrete bridge, and £84,950 for a suspension bridge, excluding demolition, land acquisition, etc. The designs and estimates have been referred to the joint sub-committee of the two County Councils for consideration and report, and in the meantime the strengthening of the existing structure has been deferred.

ILLUSTRATIONS

PLATES.

House at Lancaster Gate, W.

This house consists of four bedrooms, dining-room, drawing-room, kitchen, scullery and two bathrooms. The walls are stuccoed in two coats with Portland cement. The second coat was finished with a wood float. The projecting eaves are of V-jointed wood boarding painted white, and the roof is tiled with Loughborough tiles. The general contractors were Messrs. Truett and Steel.

Mr. G. Alan Fortescue, A.R.I.B.A., is the architect.

Extensions to Queen Mary's Hospital, Carshalton.

Queen Mary's Hospital is for children only, and is devoted almost entirely to the treatment of surgical tuberculosis. The scheme was originated by the late Metropolitan Asylums Board, and taken over and completed by the London County Council. The whole scheme comprises :—

(*a*) Increase of patients from 900 to 1,250 by taking over ward blocks now used for housing staff, and converting them to the use they were originally intended for, and the erection of two new ward blocks.

(*b*) Erection of four new staff blocks, kitchen and dining-room block; extension to boiler-house.

(*c*) Erection of a new chapel.

The two new ward blocks are practically a repetition of the old, and call for no comment. In the new staff blocks accommodation is provided for 186 sisters and nurses, 196 maids, together with a matron and a number of officers on the nursing and domestic staff, giving a total population of 397. The total amount of the contract was £207,597, which included the new ward blocks, staff and kitchen blocks, extension to boiler-house, chapel, engineering services, roads and drainage. In execution certain modifications were made in the planning of the two domestic blocks.

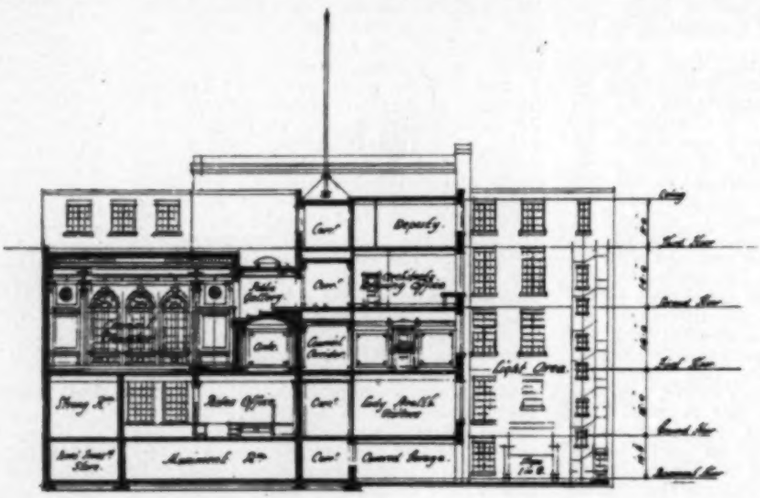
Messrs. Paine and Hobday, F.R.I.B.A., of 2, Millbank House, Wood-street, Westminster, S.W.1, are the architects; the consulting engineers, the Engineer-in-Chief, Metropolitan Asylums Board, and the Divisional Engineer, Public Institutions Division, London County Council.

The general contractors were Messrs. Wilson, Lovatt and Sons, Ltd., of Wolverhampton, and the following were sub-contractors :—S. and E. Collier, Ltd., Reading, facing bricks; Redpath Brown and Co., Ltd., steelwork; The Patent Victoria Stone Co., Ltd., cast stone and staircases; E. J. and A. T. Bradford, stone carving; James Gibbons, Ltd., Wolverhampton, steel casements and ironmongery; Val de Travers Asphalte Paving Co., Ltd., asphalt; Carter and Co. (London), Ltd., tiling, floors and walls, and Terrazzo pavings; Roberts, Adlard and Co., roof tiling and slating; Carter and Co. (London), Ltd., B. Finch and Co., Ltd., and Shanks and Co., Ltd., sanitary fittings; John P. White and Sons, Ltd., Bedford, flush hospital doors; The British Doloment Co., Ltd., jointless coved skirtings; Hollis Bros. and Co., Ltd., wood block flooring; Pollock Bros., Liverpool, plastering; M. Newman and Son, Sheffield, plumbing; Henry Hope and Sons, Ltd., Birmingham, patent glazing; Korkoid and Ruboleum Tile Co., cork tile flooring; Bratt, Colbran and Co., fireplaces; Clayton and Bell, and William Morris and Co. (Westminster), Ltd., window glazing of chapel; Alfred Bagnell and Sons, Ltd., Shipley, Yorks, painting and glazing; The Brightside Foundry and Engineering Co., Ltd., Birmingham, general engineering plant (heating, etc.); T. Clarke and Co., Ltd., electric lighting, power, bells, telephones, clocks, etc.; Edwin Danks and Co. (Oldbury), Ltd., steam boiler; Medways' Safety Lift Co., Ltd., electric passenger lifts; C. C. Gold and Co., lightning conductors; coloured figure in niche over chapel entrance by Miss M. Hobday. The clerks of works were Mr. F. R. Timewell and Mr. J. Griffin, and the general foreman Mr. France.

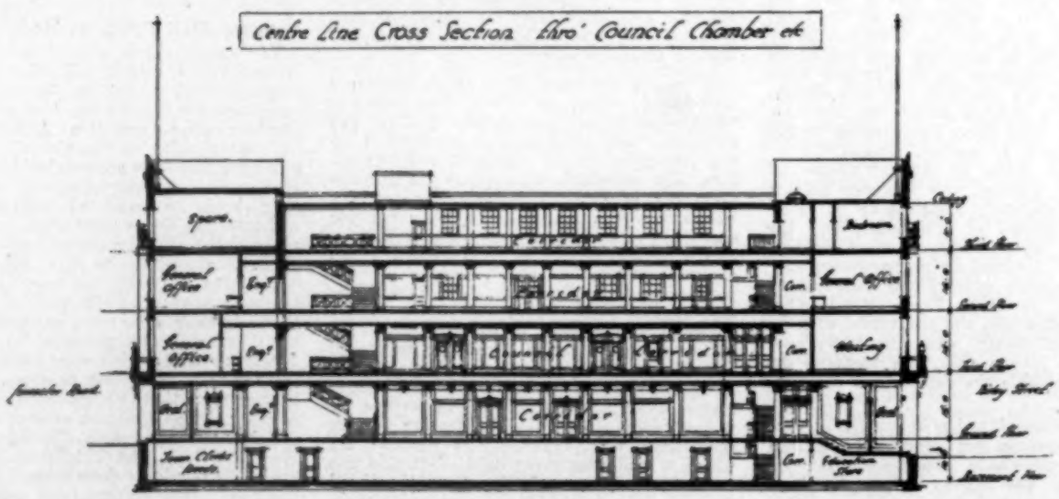
Preston Municipal Building.

This new building is to be erected on the vacant land adjoining the County Offices, and thus obtains frontages to Birley-street and Lancaster-road. It is five stories in height, and will house the majority of the Corporation departments, and includes a council chamber, committee rooms, etc., and apartments for a resident caretaker. A feature of

(*Continued on page* 927.)



Centre line Cross Section thro' Council Chamber etc



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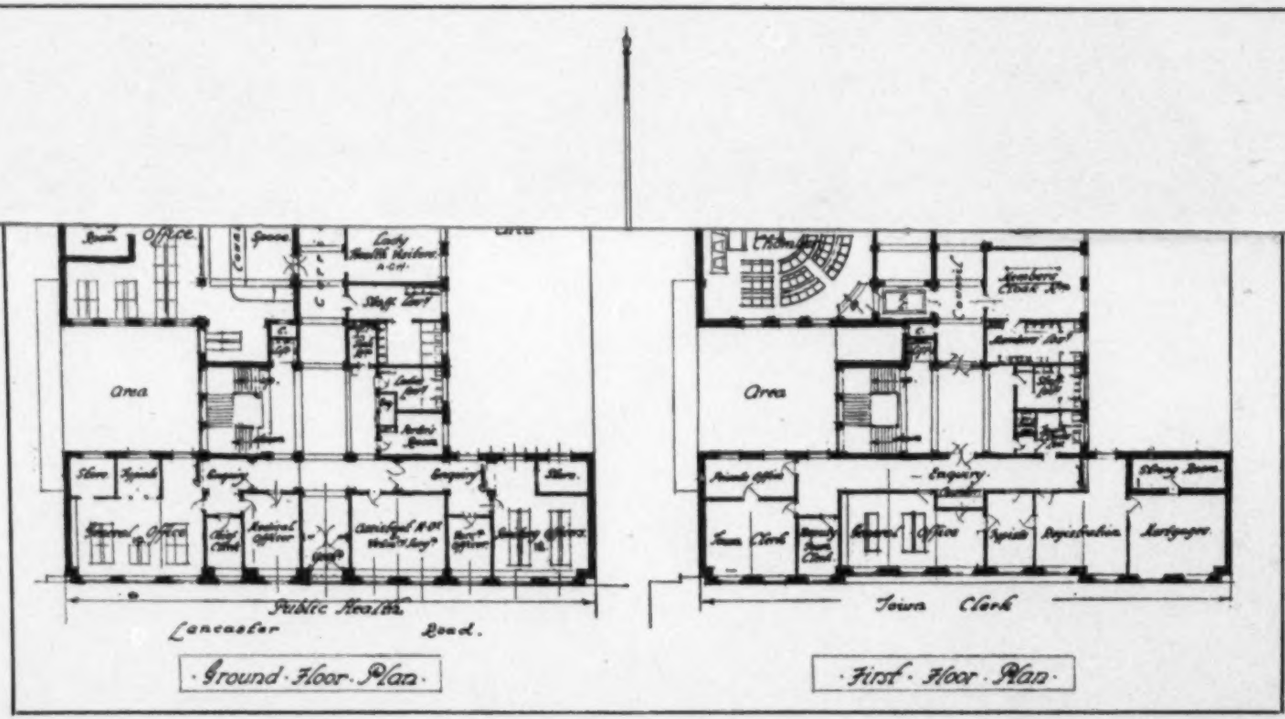
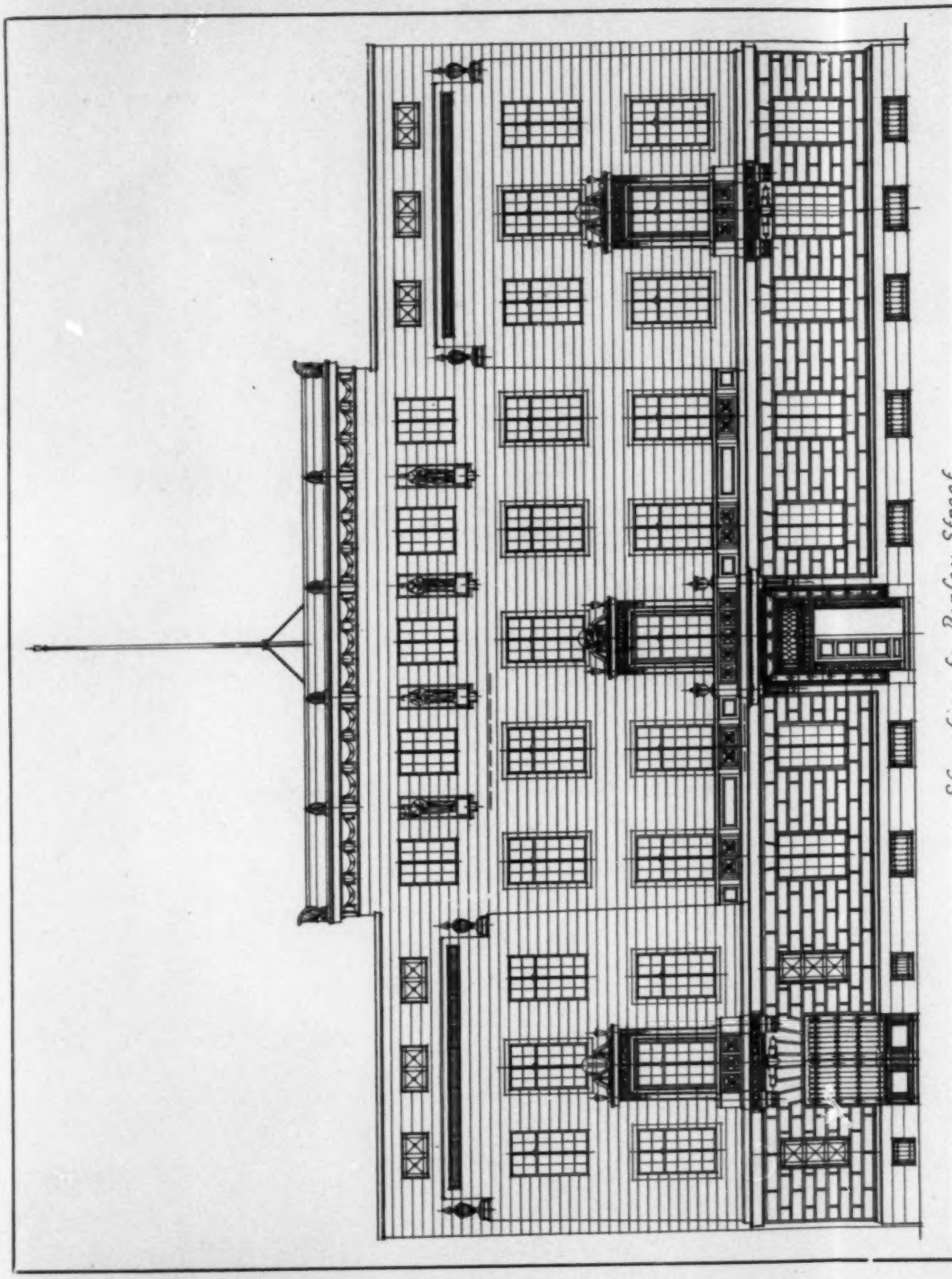
Preston Municipal Building. Messrs. Briggs & Thornely, F.R.I.B.A., Architect.

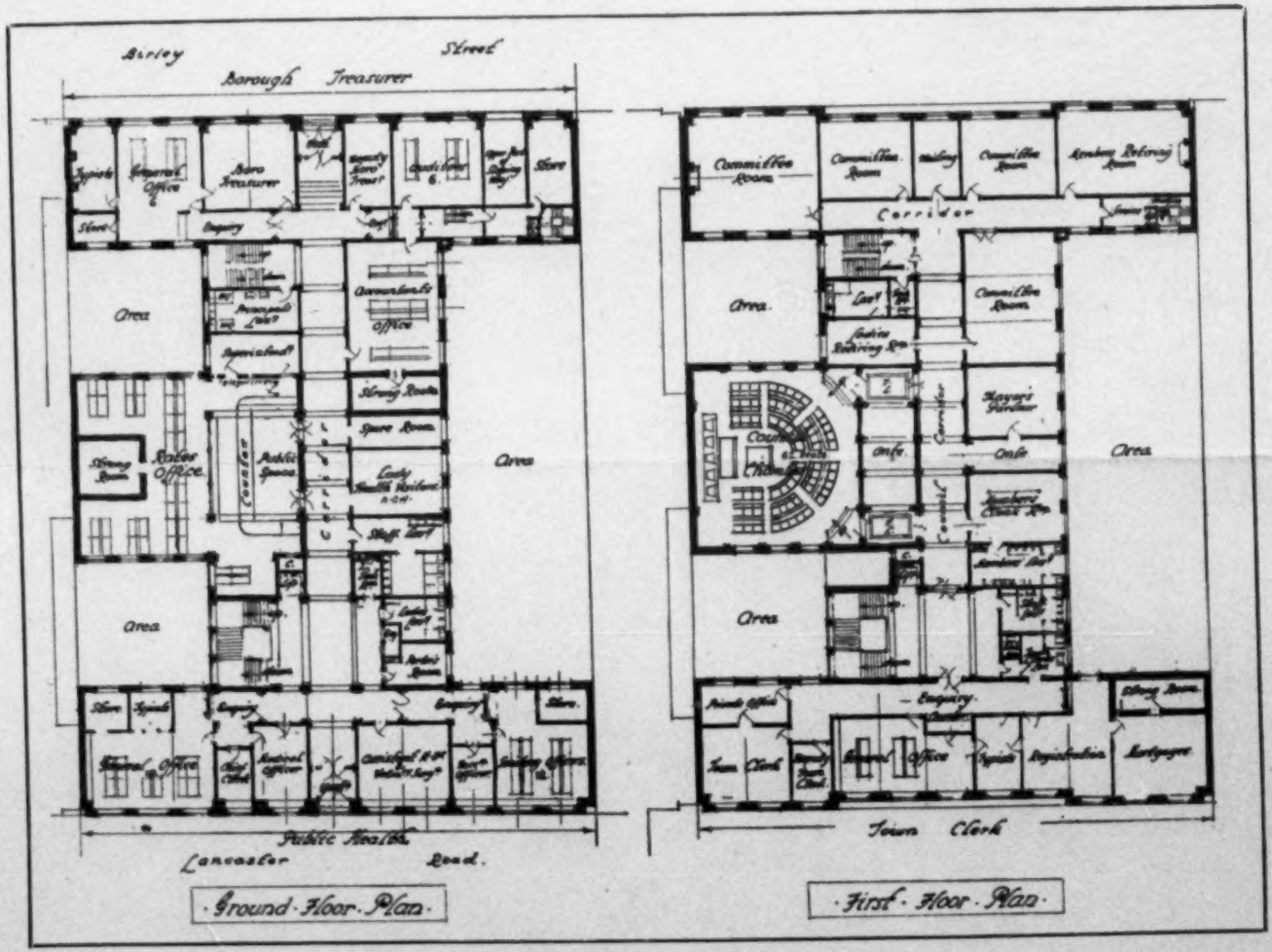


Preston Municipal Building.

MESSRS. BRIGGS AND THORNELY, F.R.I.B.A., Architects.



Elevation to Birley Street



Preston Municipal Building.

MESSRS. BRIGGS AND THORNELY, F.R.I.B.A., Architects.

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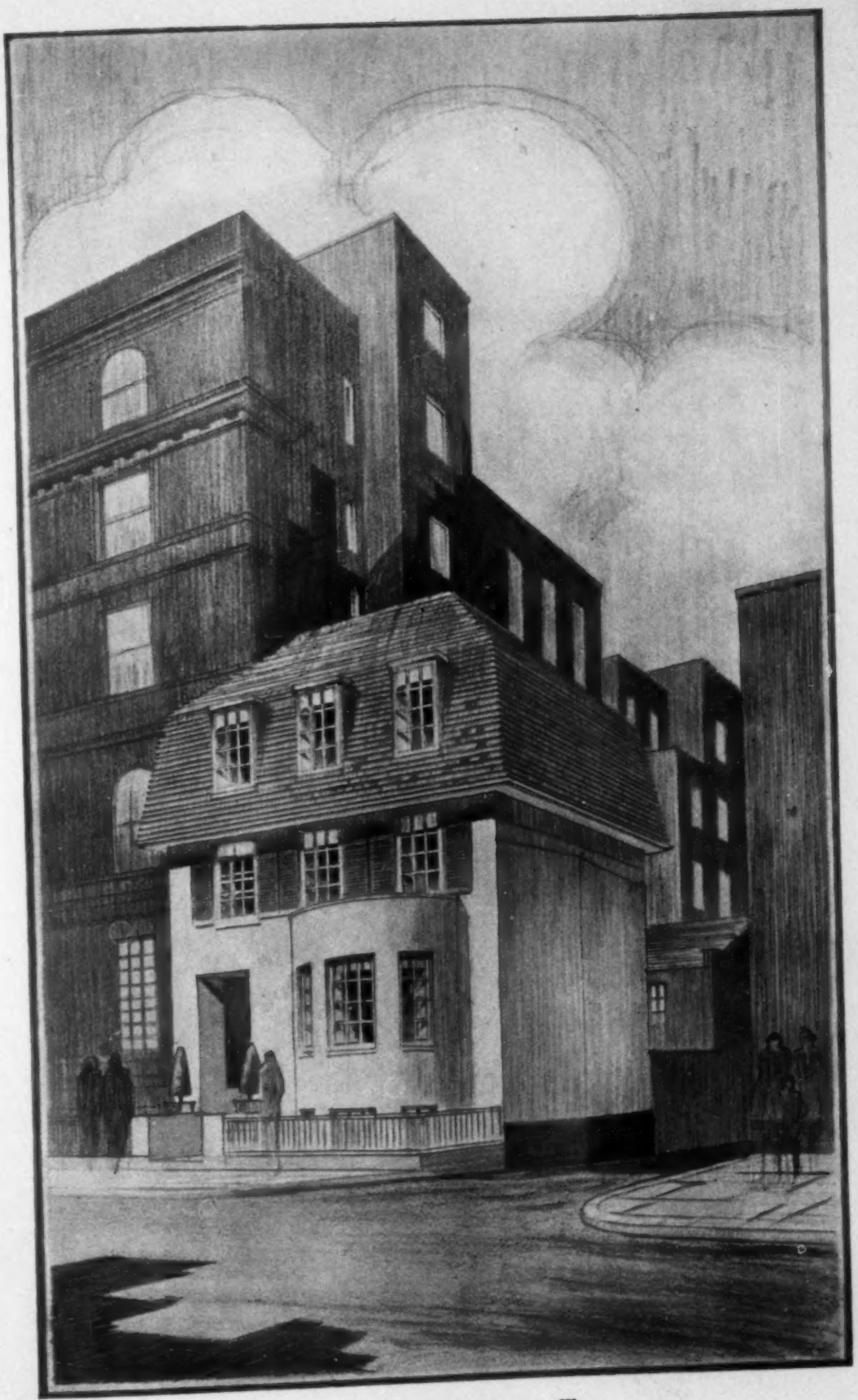
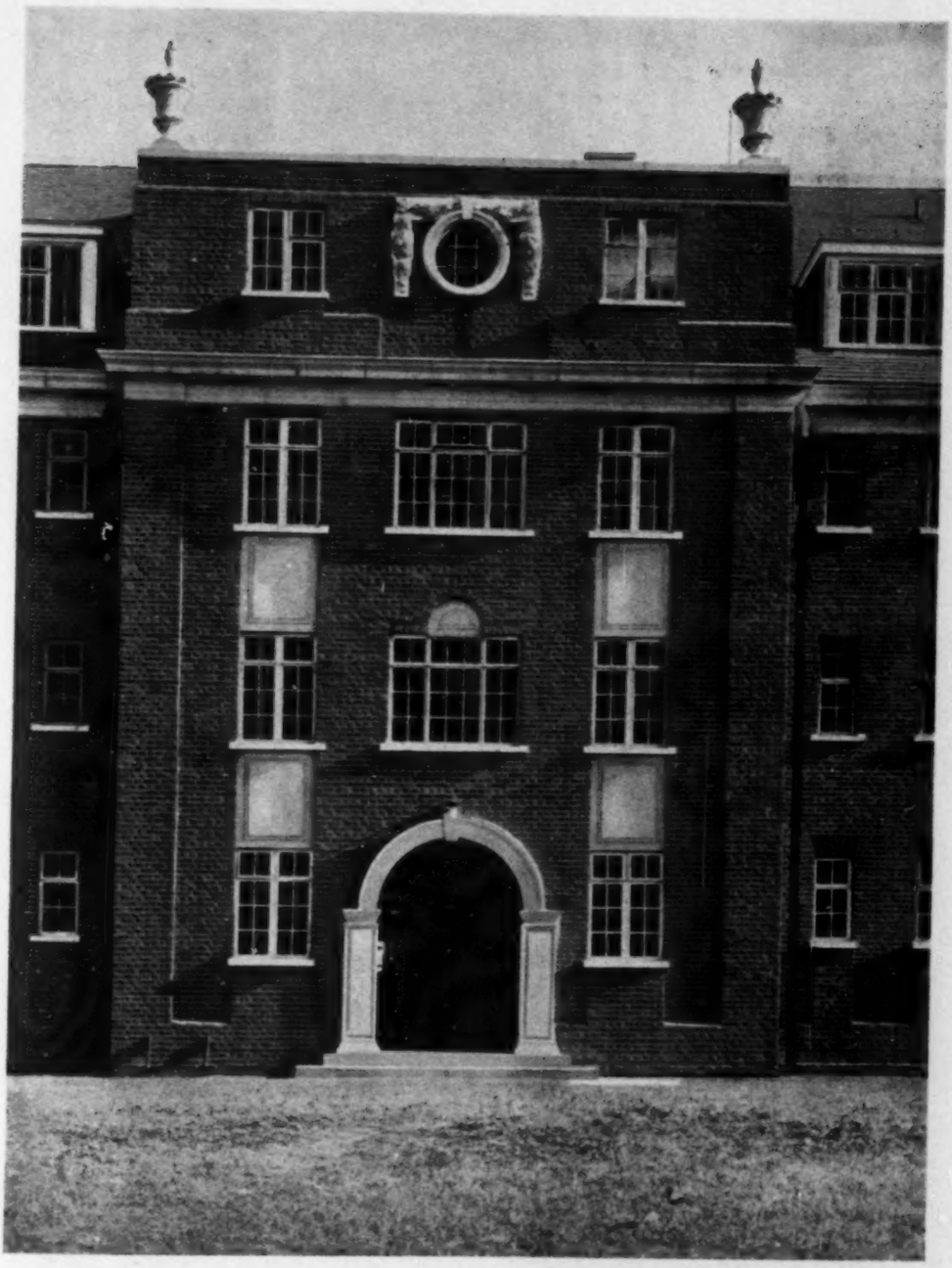


A House at Lancaster Gate, W.

MR. G. ALAN FORTESCUE, A.R.I.B.A., Architect.



Extensions to Queen Mary's Hospital, Carshalton: Detail of an Entrance to the Staff Block.

MESSRS. PAINE AND HOBDAY, F.R.I.B.A., Architects.

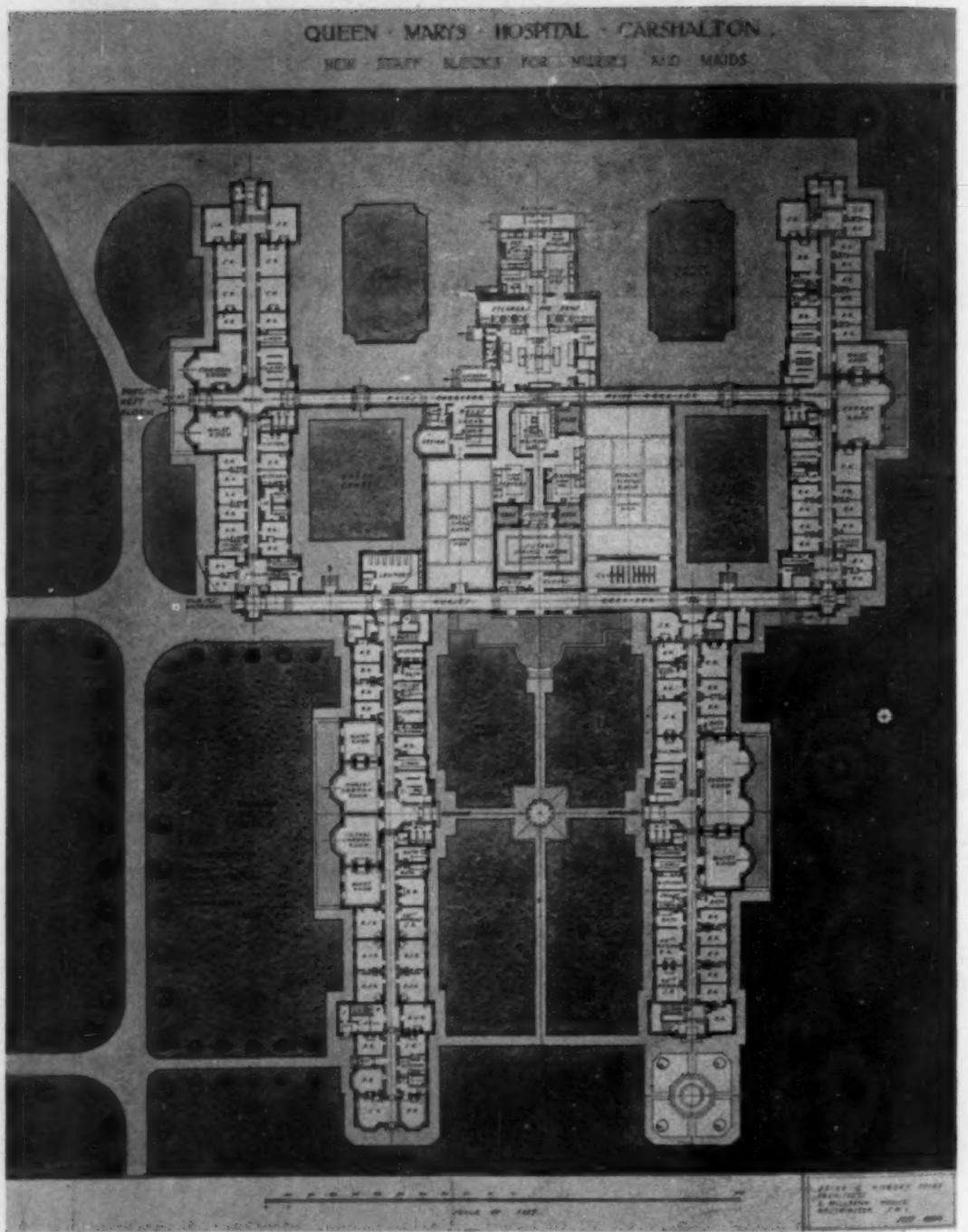
VIEW LOOKING TOWARDS WEST GALLERY.

VIEW OF WEST END.

VIEW LOOKING EAST.

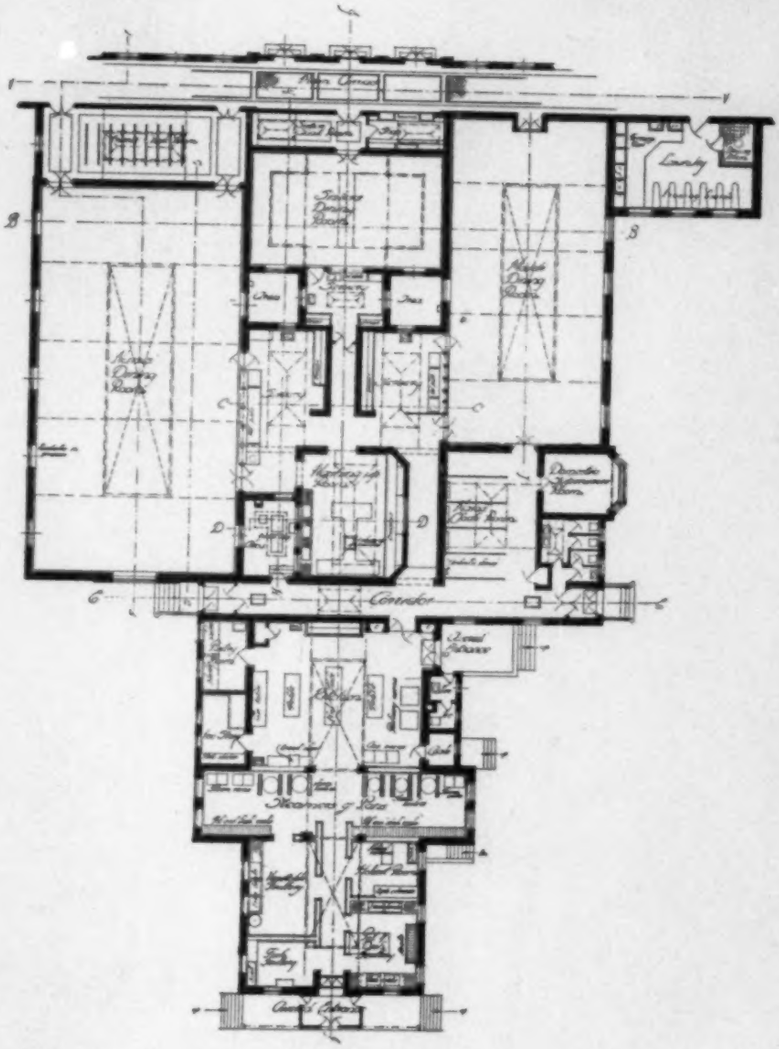
Extensions to Queen Mary's Hospital, Carshalton: The Chapel.

MESSRS. PAINE AND HOBDAY, F.R.I.B.A., Architects.

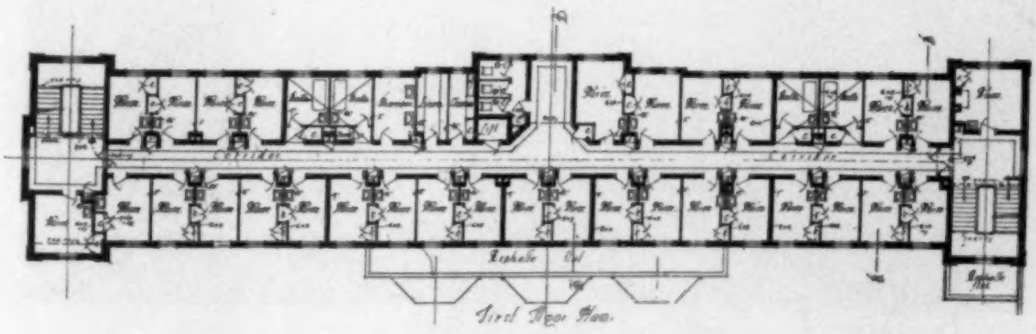


Extensions to Queen Mary's Hospital, Carshalton: New Staff Blocks for Nurses and Maids.

MESSRS. PAINE AND HOBDAY, F.R.I.B.A., Architects.



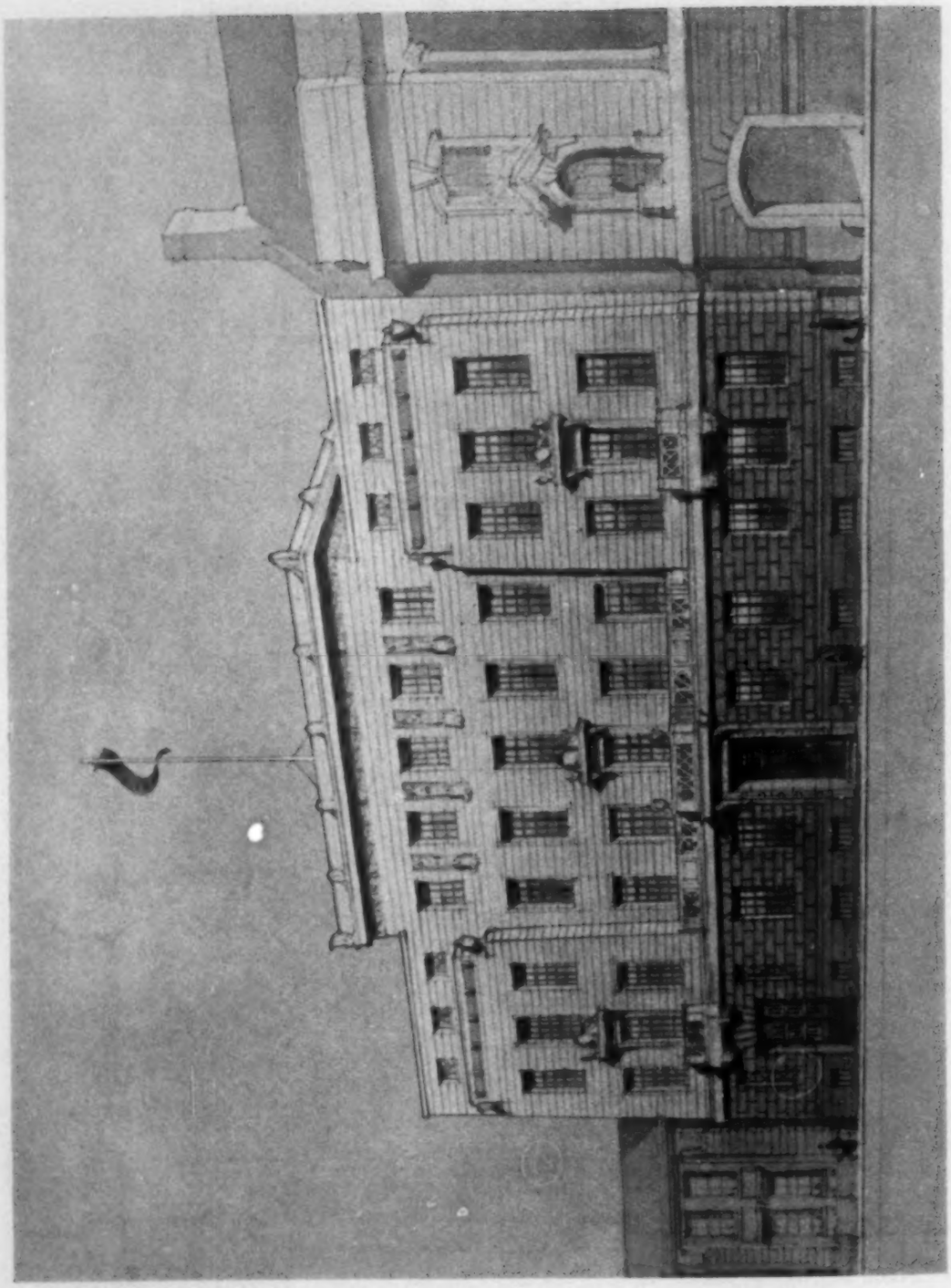
KITCHEN BLOCK.



NURSES' DORMITORY BLOCK.

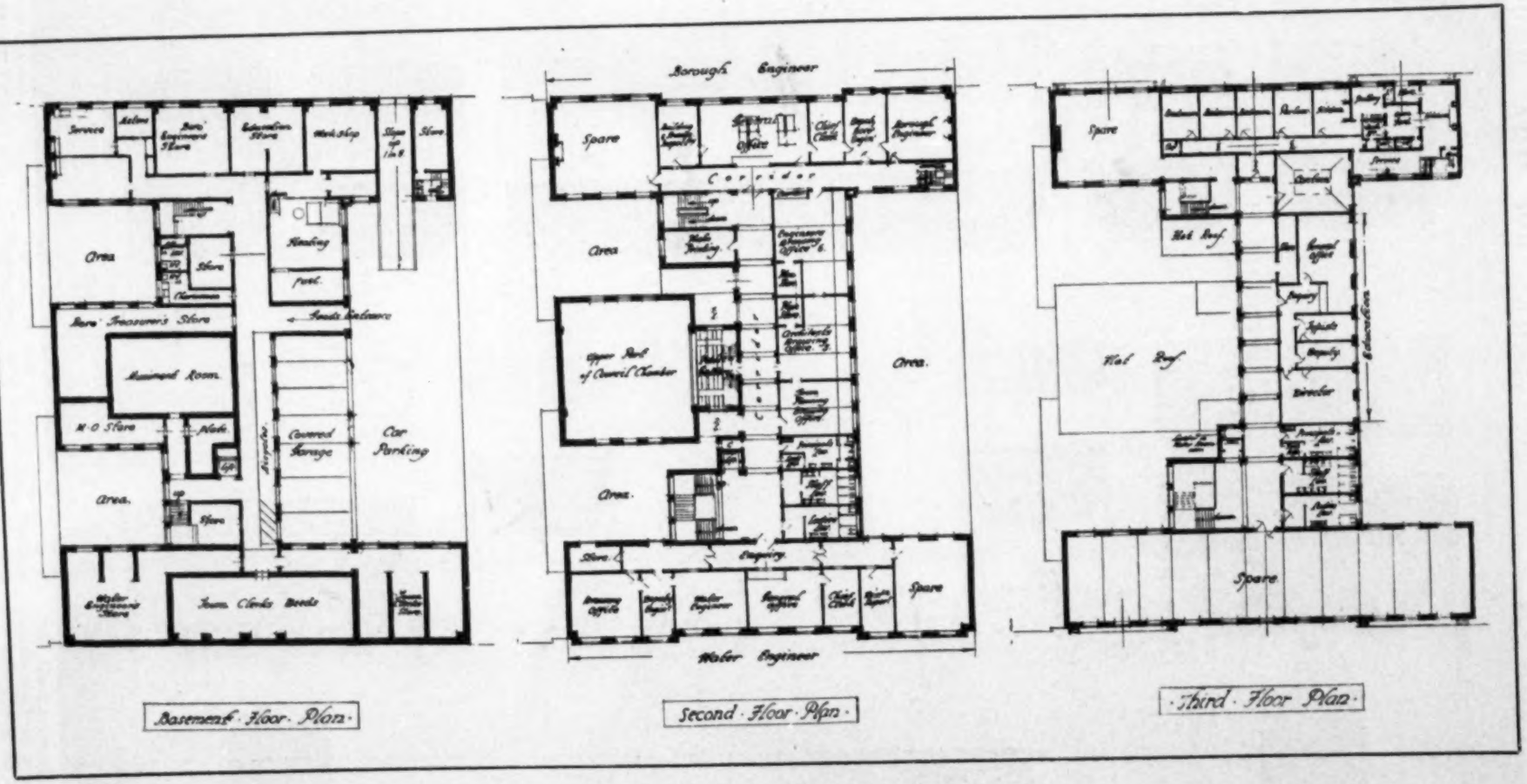
Extensions to Queen Mary's Hospital, Carshalton.

MESSRS. PAINE AND HOBDAY, F.R.I.B.A., Architects.



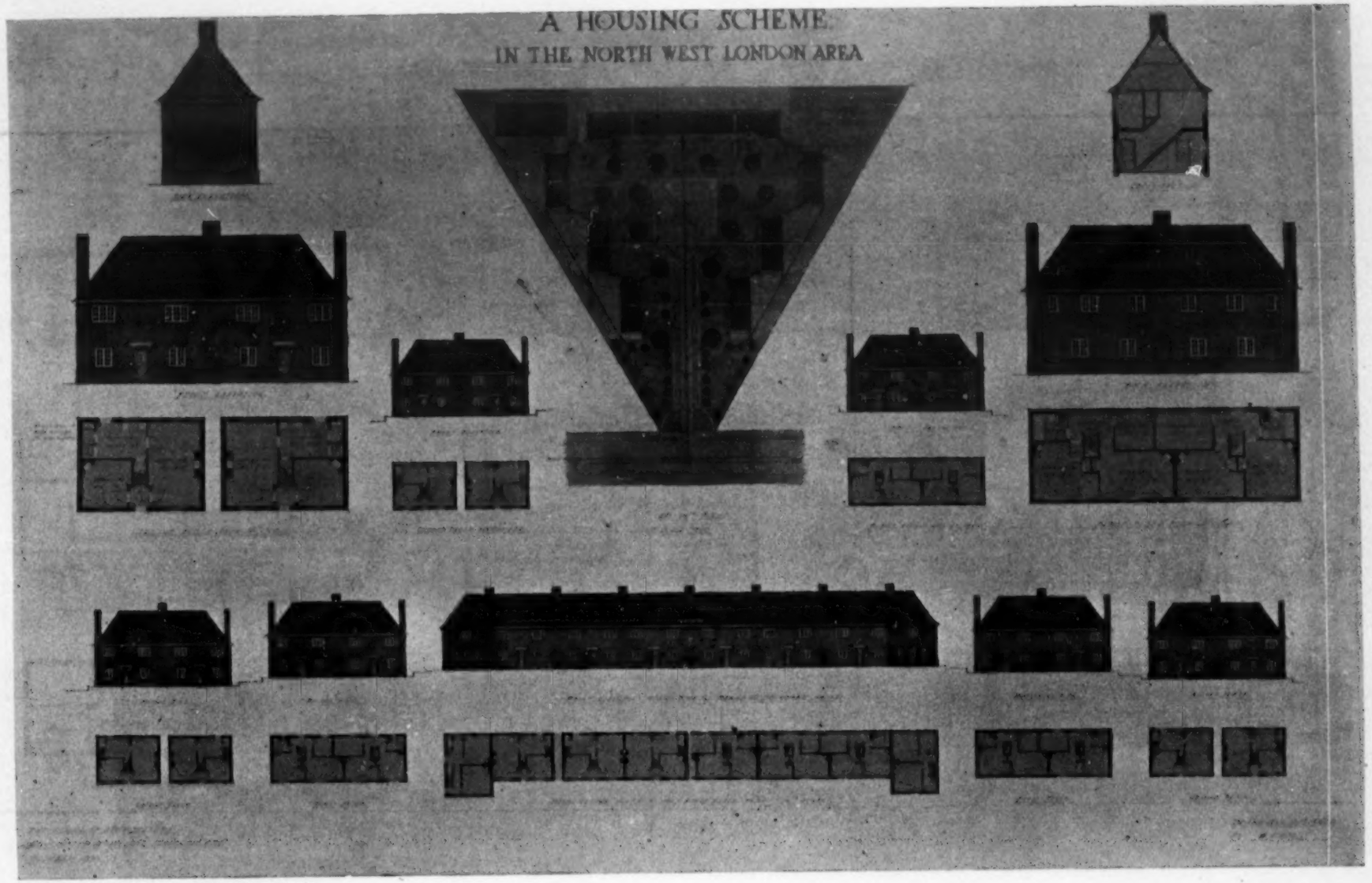
Preston Municipal Building.

Messrs. Briggs and Thorsely, F.R.I.B.A., Architects.



Preston Municipal Building.

MESSRS. BRIGGS AND THORNELY, F.R.I.B.A., Architects.



R.I.B.A. Final Examination: Testimonies of Study.

Design for "A Housing Scheme in the North-West London Area."

By Mr. B. F. Ratcliffe. (Published by arrangement with the Board of Architectural Education.)

"WHERE ARE WE GOING?"

Mr. Norman Culley presided at a meeting of the West Yorkshire Society of Architects, held on November 20, at the Leeds College of Art, when a lecture, entitled "Where are we going?" was given by Mr. H. S. Goodhart-Rendel.

What was likely to happen to architecture, began the lecturer, might very well be the same as what had already happened to it—history repeating itself. It might be that it repeated itself in an enormous circle round which the tangled line that we believed to be progress could only wind itself again and again. This we did not know; observable recurrences taught us no more than that the line, whether endless or finite, was caught up in loops; and that those who followed its every bend frequently found themselves, after much travelling, exactly where they were before. Generally they forgot having already been there and congratulated themselves upon an important advance. He did not mean by this that Sir John Soane used reinforced concrete; that William Morris made furniture of stainless steel; that Sir Christopher Wren designed in the manner of Sir Edwin Lutyens. Of course, nothing of the sort was true. Our airship-sheds, our tubular chairs, our re-galvanised Queen Anne were superficially unlike anything that had ever been seen before. What he meant was, perhaps, best expressed by rule-of-three. He thought that Sir William Chambers's method of construction was to Sir John Soane's very much as brick-and-steel was to reinforced concrete; that Early Victorian cabinet-making was to William Morris's very much as "weathered-oak" was to stainless steel; that Inigo Jones was to Christopher Wren very much as Norman Shaw was to Sir Edwin Lutyens. The transforming factor was the same; the same wave of a wand could change horses into mice and a coach into a pumpkin. Art was a magician that produced creatures of great variety by processes that hardly varied at all. At least, that was what he, said the speaker, believed.

The unvarying processes of art, however, had their own rhythm of shock and recoil, and we did not know that rhythm exactly enough to be able to predict whether taste at any given moment would be travelling forward or backward along its course. Nevertheless, certain signs would seldom deceive us. An apparent halt was usually the last symptom of recoil. A form of art stopped changing and stayed the same for too long, and people tired of it, and started backing away from it. This happened notably in English architecture at the end of the Gothic period, and again at the end of the Anglo-Greek movement of the early nineteenth century. It was happening now in our general repudiation of the five Orders, and would happen soon, he dared say, in a reaction from stark form into unashamed curliness. If the severity of our present taste held much longer, he foresaw some amusing debauchery following it. In other things than architecture there were already portents of a revolution. The musical voice of Mendelssohn was again heard in the land; Mr. Blunden had written a book about Leigh Hunt; and feminine costume showed a definite (though still repressed) tendency to billow. Now, one could not billow in a room like an operating theatre. One could not melt to the strains of Mendelssohn, not satisfactorily, at least, sitting on a chair made of large croquet-hoops and some india-rubber sheeting. The room and the chair belong to the pyjamas-and-jazz-band conception of life, and in that conception flounces and songs-without-words had no place. Unless those who were now our most advanced designers took heed of the human fondness for a little fluff upon the fabric of life, they would find themselves badly in the rear of a general retreat toward the well-padded dugouts of the old Victorian line.

If those advanced designers cared more—as he hoped they did—for design than for being in advance, they would be content to take a turn after leading at being led. Sometimes the world would take what the artist chose to give; at other times the artist must give what the world chose to take. The mood of the world was swayed by things that were mostly external to art, and the world's docility towards artists varied with the quietism of its mood.

Domestic architecture was, he thought, bound to react soon from neo-classic or extreme modern austerity into something more elastic, of precisely what kind it was impossible to say. Probably that reaction would be indirectly felt in other kinds of architecture as well, and in some of those it would probably do more harm than good. It might allowably be maintained that in a workshop austerity was a merit and ornament an impertinence. Most office buildings were nothing more than workshops; so, in another sense, were school-buildings, and the designation needed not to be greatly stretched to include public libraries. Architectural display was appropriate to exceptional buildings in all those classes, but the general run of them was better with no pretence beyond comely efficiency. In so far as the "functionalist" style really functioned it could teach us to put all those workshop-buildings out of fashion's reach, to establish for them types that nothing but increase in engineering skill could be allowed to modify. This might be hoped for, but he feared that it could not be expected. It was very difficult to make simple and convenient office-buildings expensive enough, either in first cost or cost of upkeep, to satisfy the importance of most big business firms, and he fancied, said the speaker, that the present competition in columns and domes could be stopped only by the ridicule that public criticism was not yet ready to bestow upon it. In the main, with some honourable exceptions, the architects of big office-buildings would probably continue to bounce about from one elaborate style to another for some time to come.

Hospitals and swimming-baths, workhouses and markets must be clean, above everything; and it was reasonable to hope that in the architecture of these buildings the sanitarian would never lose the ground that he was winning from the ornamentalist. True, swimming-baths and markets were susceptible of a great deal of external veneer without damage to their usefulness and were, therefore, likely to change their faces with the changes of taste. Museums and art galleries might also change their faces, but were not likely again to become as distractingly decorative inside as once they used to be. Churches and cinemas both belonged almost wholly to the architecture of sentiment, the first demanding an expression of spiritual pleasures, the second featuring body-urge and all-action climaxes.

If, then, we excepted hospitals, workhouses and those workshops that were not grand offices, and if we made no forecast about schools and public libraries, we were left with monumental, municipal and domestic buildings, with eating-places, shopping-places, dancing-places and places of audience, to comprise the main body of changing architecture over which future fashions would have direct sway. Reason might be absolute outside that body, but within it Fancy would continually jog her elbow and confuse her counsels. An equilibrium between Reason and Fancy was the dream of the sanguine, and if that dream came true we might expect noble development in our art. At present he saw no hope of it; age and youth were at war—our young architects such fierce realists, our elder such whimsical romantics; and the only equilibrium was a deadlock between diehards. But he might be unduly despondent. Of one thing, however, he was sure—an architecture of Reason alone could not subsist. Eliminate Fancy and one eliminated one of architecture's indefeasible ingredients.

One or two little reputations had been made lately by propounding as a red-hot gospel observations that had been slipping quietly from the pen of Professor Lethaby during the last forty years or so. These new evangelists were not very good at exposition, and he therefore advised anybody who wished to learn the doctrine of "functionalism" to go to the fountain-head and re-read the classical last chapter of Professor Lethaby's book *Architecture*. Two passages from that chapter, said the speaker, he would quote here: they contained the essence of the creed that inspired them. "Nothing," the Professor says, "looks well that has been done for 'look.' It seems right at first, but quickly the doing becomes diseased. Only by being intensely real can we get back wonder into building once more. We have this awe of a ship, a bridge, a machine. Why should that ancient thing, a house, have become so vulgar and pretentious? It seems to be the result of 'good taste.'" That is the first passage, and the second reinforces in a single sentence the meaning of the first. "We have to aim at a standard of ordinary good quality; damp, cracked and leaky 'architecture' must give way to houses as efficient as a bicycle." In short, *A bas les architectes*. Let them turn mechanics. This age, like all ages in which the impulse toward art was feeble, said the speaker, was an age of art-talk; and art-talk, though of great philosophical importance, tended to emphasise men's differences and prevent collective art-work. Professor Lethaby said in the book from which he had already quoted that art was now one man deep when it ought to be a hundred men deep. He doubted, said the lecturer, if it ever would be a hundred men deep again, but it might become ten thousand machines deep, and such an event should have important consequences. Standardised homes for standardised robots need not spell—as the sentimental supposed—the death of architecture; provided, of course, that the standard was capable of constant modification and development. A house was neither better nor worse for there being many others like it. The future into which he was trying to gaze, however, was very much nearer than any age of robots, and he foresaw in it no closer architectural team-work than we had at present. He thought that the flux of fashions would continue in control for a long time, and that the novelties of the next few seasons were likely to be a little gayer than the present mode. He fancied that the tumult and the shouting about a new age (which always had been coming and never yet had come) would die down. Architecture, continuing to be one man deep at its best, would depend for its collective merit on the various excellence of particular artists.

Mr. G. H. Foggitt, in moving the vote of thanks, observed the elder men had not been trained in the modern style, and so had only tradition to guide them. He had found the lecture most stimulating, and agreed that there would be a rebound from "functionalism" when it had exhausted itself by the excesses into which it seemed to be drifting.

Mr. J. C. Procter hoped that the thin end of the wedge of "functionalism" would not be introduced into Yorkshire. Wherever they might be going, they, fortunately, had not yet started to go in that direction.

In support, Mr. J. Addison said that the lecturer had given them some very strong meat to digest. He thought that the paper should be in the hands of every architectural student.

Mr. Norman Culley hoped that the paper might be issued in pamphlet form, for the benefit of their members and associates.

Mr. R. R. Gribbon moved that the Society cause the paper to be so treated, a resolution which was unanimously carried.

Mr. Goodhart-Rendel, in reply, said that students could not go wrong in mastering the five orders, and the art of other periods: because, before one became a rebellious subject, it might be well to know against what one was in rebellion.

"THE BUILDER" DEBATE

XXXV.—REPETITION OF DESIGNS.

SIR, I beg to move:—

"That the British manufacturer, asked to estimate for the production of a special fitting to an architect's design, should, whenever possible, do everything in his power to relieve the architect of some considerable portion of the overhead charges, by obtaining his consent to continue the manufacture of the fitting (after having supplied the architect) and to market it as one of his own standardised designs."

It not infrequently happens that an architect, engaged upon some important "job," can find no design of a particular character of fitting, which pleases either himself or his client. He must therefore design one himself, and have it specially made. (It may be assumed either that the fitting in question is decorative, such as a drawn metal moulding, carpet, door handle, etc., or practical, such as a bath or gas stove.) What happens? The manufacturer who genuinely wants to do the job goes into the question of costs, and sends in his estimate. Now, the architect wants very few fittings—say 20; and the first charge which the manufacturer has to make is £100 for the moulds or dies. Apart, then, from the cost of material, workmanship and fair profit, there remains £5 to be added to the price of every fitting. (The list price of the same manufacturer's most nearly similar standard design is 35s.)

And so the architect tries his luck on the Continent. Here a different state of affairs will greet him; and in due course the estimate will come in, but, with it, a highly significant letter in which the manufacturer will explain that if the architect wishes to have the fittings *exclusively* for himself the cost will be so-and-so; but the manufacturer will make no charge (or at most only a nominal one) for overhead expenses, *provided* that he has the architect's permission to *mass-produce* the fittings (after supplying them first of all to the architect), and to sell them as standard articles. The architect is thus able to acquire a specially-designed article at a price very slightly in excess of what he would have to pay for a standard one; while the manufacturer invests his overhead charges, and distributes them, through his sales organisation, to the public which ultimately buys the standard fittings.

This system, clearly, cannot be made to operate under all conditions; there would be very many cases in which a fitting designed for a particular building would be quite valueless for any other; and here the idea breaks down. But in very many instances such a proposition would be of immense value to both parties. And why should not the architect welcome such a suggestion? He wishes to do full justice to his building; he knows the effect of minute details, and feels the need for such a fitting as he has designed. Whereas the cost would normally be prohibitive, here is a way in which he can achieve his object. Some architects, I know, will argue that the fitting has been designed for the client, and that the architect has no right to "broadcast" it; this is not so, for the copyright of a design belongs to the architect, who is at liberty to erect as many houses as he likes to the same design, if it suits him. But, for those who stand upon this ceremony, there is still a course open, and that is to ask permission from the client.

Every man has, in some degree, a leaning towards the possession of something which no one else has got; and, provided that he can afford to support this, very well! But in the case of a man who has the intelligence to appreciate anything for its intrinsic beauty of form, or even for its superlative efficiency, and who is, besides, not sufficiently rich to be exclusive (and these are the majority), one may suppose that the client will in most cases prefer to see his fitting elsewhere, occasionally, when the alternative is not to see it anywhere at all. There is, after all, some satisfaction to be had from holding oneself up as an originator.

As far as the architect is concerned, he may regret the standardisation; he may equally well applaud it and feel flattered. And as regards his remuneration as designer, he has, thanks to the manufacturer's offer, achieved the production of his design which would probably, otherwise, never have come to fruition. And, after all, if the fitting does not "take on" in the open market the manufacturer is the one who loses—and for that risk he deserves some consideration.

"POSITIVE."

CONTROL OF BUILDING ELEVATIONS

WE have received a copy of a "Memorandum regarding control of building elevations submitted to and unanimously approved by the Council of the West Yorkshire Society of Architects, January 16, 1930, and forwarded to the Deputy Town Clerk of Leeds, January 17, 1930."

It is explained that under the Leeds Corporation Parliamentary Bill, 1930, a local alderman having given an undertaking to ask for the deletion from Clause 40 of reference to the Committee named in that clause, it is possible that the power of the Corporation to control elevations may be based only on Section I. of Clause 40. In that case no provision would be made for the Corporation to receive advice, technical or otherwise, and it may be that they would consider a proposal to form an Advisory Committee on somewhat different lines to those proposed, but disapproved by the electors, in the draft Bill. It is to meet this contingency that the memorandum has been submitted, and from this we take the following extracts:

"The profession of architecture may be compared with that of medicine, and it is suggested that, given the opportunity, architects should voluntarily assist in the remedial treatment of defective building designs in the same way as doctors give their honorary services to hospitals. We believe it to be essential that steps should be taken to secure that new buildings shall be seemly in design, appropriate in the use of material and harmonious in colour, but we are convinced that it would be futile to offer intending building owners advice and guidance if these could be rejected with impunity. For this reason we support the proposal of the Leeds Corporation to seek control of elevations and we submit the following proposals as an alternative to those of the 'Bath Act' clause to which objection has been raised.

"The West Yorkshire Society of Architects will appoint annually a panel of 15 architects, members of their Society, who shall have been in practice (other than as assistant architects) for not less than five years. Not less than three and not more than four of these shall be architects having their offices situated outside the City of Leeds for the time being. The members of the panel shall serve, three at a time, as members of an 'Architectural Advisory Committee.' This Committee would act in an advisory and not in a judicial capacity. The period during which each member would serve on the Committee would normally be three consecutive calendar months. Each month one member would retire and be replaced by another member of the panel. The rota of members on the panel should be so arranged that the Committee always contained one member practising outside Leeds. The above scheme calls for the services of 12 architects only. The three additional architects included in the panel are intended to act as a reserve in case of emergency. No member of the Committee should take part in proceedings in any way affecting buildings for which he is architect, building owner, trustee or in any other way interested.

"The Corporation shall refer to the Committee:—(*a*) Elevations of all buildings which the Corporation consider open to objection. (*b*) Elevations of all buildings which, when submitted to the City Building Surveyor, are accompanied by a request that they may be so submitted. (*c*) Elevations of all buildings to be erected for the Corporation within the City of Leeds.

"The Committee is to consider not less than once in each calendar month all elevations referred to them by the Corporation and is to report whether:—(*a*) they approve or consider the elevations permissible, (*b*) they suggest alterations or modifications, or (*c*) they consider the elevations should be disapproved. Reasons for modification and disapproval are to be stated. On receipt of the Committee's report the Corporation may approve the same, in which case they will send a copy of the Committee's report respecting alterations or disapproval to the person submitting the elevations, or, if they disagree with the findings of the Committee, may approve the elevations forthwith.

"The person submitting the elevations may on receipt of the notice of disapproval or recommendation for amendment, object to the Committee's finding and send a request in writing to the Corporation that he may be heard at the next meeting of the Committee. He must send with this request particulars of his objection. He shall be heard at the next meeting of the Committee who, after taking his objection into consideration may confirm, amend or annul their previous report and report to the Corporation accordingly. If the Committee still recommend amendment or disapproval the Corporation may confirm or otherwise the Committee's report and shall notify the person submitting the elevations of their decision If a person submitting the elevation still objects to the Corporation's decision he may appeal to Quarter Sessions.

"In that case the Corporation shall lay the elevations in dispute together with all material documents before a F.R.I.B.A. not being a member of the West Yorkshire Society of Architects, to be nominated by the Corporation, for his considered opinion. Should he disapprove the recommendations of the Committee, the objection of the person submitting the elevations shall be allowed, but if he confirms the recommendations of the Committee the objection shall be heard at Quarter Sessions and he shall be commissioned as expert witness on the Corporation's behalf. The decision of Quarter Sessions shall be final.

"The services of architects serving on the Committee to be honorary, but out-of-pocket expenses to be refunded by the Corporation. The Building Surveyor's Department to provide stationery and drawing materials when required. The fees of the F.R.I.B.A. to be consulted by the Corporation after notice of appeal would be paid by the Corporation if he disapproved the findings of the Committee and the appeal did not go to Quarter Sessions. If he confirmed the findings of the Committee and the appeal went to Quarter Sessions the costs would be assessed in that Court."

The memorandum suggests that the Committee should be composed as follows:

Three Architects nominated by the Society; Justice of Peace, two Art representatives nominated by the Corporation; representatives of University, Surveyors, and Builders, nominated by their respective organisations (nine members in all).

Proposed Southport Schemes.

The Southport Town Council has approved schemes for the remodelling of the North Marine Gardens and the building of a floral hall there, at an estimated cost of £20,000; and for an ornamental bridge over the Marine Lake, leading to Prince's Park, also at an estimated cost of £20,000. The floral hall will provide seating for 1,600 people, and there will be a café attached. The building will be in classic style.

SOCIETIES AND INSTITUTIONS

LIVERPOOL ARCHITECTURAL SOCIETY.

Before the Liverpool Architectural Society, in Bluecoat-chambers, Mr. Joseph Emberton read a paper on the influence of modern materials on architectural treatment. The lecturer said that if we had any real sense of structure many of our so-called modern buildings, with their misuse of functional forms—such as the column—would appear to us ridiculous. It was surprising that so long a time had elapsed since the introduction of the steel-framed building without our having seen beauty in its form or seriously set ourselves to express its properties. In many cases we used steel as an extended form of carpentry. Instead of frankly acknowledging the steel frame, as did the mediæval builders their flying buttresses and the Elizabethans the timber frame, we set ourselves out to provide an elaborate system of camouflage. And that was architecture! Why not apply rationalisation to architecture by using new materials and forms? asked the lecturer. Instead of fat, over-dressed buildings, we might then have clean, efficient structures. That would involve the acceptance of new forms and proportions, which could not be judged by the standard evolved when the structure of buildings was of entirely different materials whose properties were far less flexible than those of the new materials. . . . We could not now rely on an army of competent craftsmen to embellish our work. The architect himself was the craftsman, the new materials his medium, and the factory and mechanical appliances his tools. Let him forsake camouflage and build in truth.

In the discussion, Professor C. H. Reilly said the difficulty was to unite the new world to the old. The Renaissance brought a sense of order; it made buildings relate. Modern architecture was more akin to the Gothic in its individuality. Could we imagine a street of these highly individual modern buildings? To fulfil his function, the modern architect must express all sides of life, and his problem was to make something that was not pure "machine," but was gay and happy and representative. And that was not easy.

Moving a vote of thanks, Mr. F. X. Velarde said he thought there were definite pitfalls in modernist architecture, especially as it was an imported product, and there was a danger of affectation. Seconding, Mr. F. Morrall Maddox (North Staffordshire Society) declared that "function" was not enough. It did not tell the whole tale.

SOUTH WALES INSTITUTE OF ARCHITECTS.

The South Wales Institute of Architects, in conjunction with the Welsh School of Architecture, arranged a particularly interesting series of exhibitions of architectural drawings at the Technical College, Cardiff, on Thursday, November 13. The exhibition, which was in four parts, was well attended by members of the South Wales Institute and others interested on architectural design and draughtsmanship. The four sections of the exhibition were as follows :—

(1) R.I.B.A. Prize Drawings, including the Tite Prize (four sets), Soane Medallion (two sets), Measured Drawings (one set), Hunt Bursary (one set), and the set of drawings with which Mr. J. B. Wride, of the Welsh School of Architecture, won the Rome Scholarship, 1929.

(2) R.I.B.A. Testimonies of Study for the Intermediate Examination (three sets), and Final Examination (two sets).

(3) R.I.B.A. Exhibition of Working Drawings. This included working drawings by Mr. W. A. Forsyth for the University College, Hull, and a new boarding house at Rugby; Messrs. Richardson & Gill's Mothercraft Training Hostel, Highgate Hill, London, and Mr. Edward Maufe's Kelling Hall, Norfolk; and work at Trinity College, Cambridge.

(4) South Wales Institute of Architects, Central Branch. Exhibition of members' working drawings. This included Messrs. Ivor Jones & Percy Thomas's new offices for the Glamorgan County Hall, Cathays Park, Cardiff; Church at Wrexham, and dance hall at Barry by Mr. T. Alwyn Lloyd, President of the South Wales Institute of Architects; Hubbeston Parish Church by Mr. J. B. Fletcher; and housing schemes at Tremorfa and Cowley by Mr. Gordon Griffiths.

WELSH SCHOOL OF ARCHITECTURE.

Mr. W. S. Purchon, M.A., A.R.I.B.A., the Head of the Welsh School of Architecture, presided over a large audience of students and members of the South Wales Institute of Architects on November 19, when Mr. Hope Bagenal, of the Architectural Association, lectured on the subject of "The Influence of Acoustics on Architectural Design." He dealt in an illuminating manner with a variety of acoustical problems, showing not only the very special need for care to be taken in the planning and arrangement of rooms used for acoustical purposes in the original design of the plans, but also laying stress on the great importance of careful consideration of the materials used, emphasising some of the difficulties which have arisen through the abandonment of traditional building materials.

At the close of the lecture Mr. Percy Thomas, F.R.I.B.A., expressed the appreciation of the audience. A design subject involving special acoustical requirements had previously been set to the students of the Welsh School of Architecture, and after the lecture Mr. Bagenal discussed each of the sketch designs submitted in detail with the students, and on the following morning he gave a second lecture in which he dealt more particularly with the actual calculations. Mr. Bagenal's lectures and criticism have, we are informed, aroused a keen interest in the subject of acoustics in the School.

SOUTH YORKS ARCHITECTS: ANNUAL REPORT.

The report for the year ending April, 1930, of the Sheffield, South Yorkshire and District Society of Architects and Surveyors is again well-produced and interesting. The membership of the Society stands at 138, and the architectural department, associated with Sheffield University, under the able direction of Mr. Stephen Welsh, M.A., B.Arch., A.R.I.B.A., is also making decided progress. There are now 27 students, 14 of whom are full-time. One of these, Mr. F. W. Wright, has been awarded a maintenance scholarship by the R.I.B.A. The year-book contains reports of a number of valuable lectures read before the Society.

FACULTY OF SURVEYORS OF SCOTLAND.

The following candidates have successfully passed the recent examinations of this Faculty :—

Preliminary Examination.—John Liddell, Edinburgh; Robert A. S. Jamieson, Edinburgh; Thos. Dobson, Glasgow; G. D. Jamie, Edinburgh; James Struthers, Motherwell; A. M. Murdoch, Glasgow; five other candidates had partial passes.

Professional Examination, 1st Division.—George Foote, Glasgow; Geo. Tulley, Edinburgh; P. Wyper, Motherwell; Geo. H. Oswald, Jr., Glasgow; Geo. Rae, Edinburgh; Robt. Lumsden, Glasgow; Joseph Nicol, Edinburgh.

Professional Examination, 2nd Division.—Andrew Brown, Glasgow; R. Douglas Pringle, Edinburgh; William Neil, Rutherglen. Prizes for merit have been awarded to Mr. George Tulley and Mr. George Rae.

NATIONAL HOUSING AND TOWN PLANNING COUNCIL.

The annual housing and town planning conference arranged by the National Housing and Town Planning Council in conjunction with the Scottish National Housing and Town Planning Committee was held at Blackpool over last week-end. Nearly 200 local authorities, county councils, metropolitan and county boroughs, burgh, urban and rural district councils were represented, as well as 11 interested associations and trade unions.

At the opening on Friday at the Imperial Hotel, Mr. Alwyn Lloyd, F.R.I.B.A., presided, and papers were presented by Dr. Raymond Unwin, technical adviser to the Greater London Regional Planning Committee, on "Future town-planning legislation," and by Sir Theodore Chambers, vice-president of the Town-planning Institute, on "Machinery for the building and controlling of new towns." Both the lecturers and subsequent speakers stressed the need for considerable amendments in the 1925 Town-planning Act, and the Conference unanimously passed a resolution stating that the delegates noted with satisfaction that among the measures promised in the King's Speech there was included a Bill to extend town-planning powers and to secure rural amenity.

"The delegates," the resolution continued, "cordially approve the principle of extending the scope of the Town-planning Act, 1925, so that it may apply to all land, whether or not it is built upon or appears likely to be used for building purposes. Without such extension the efficient replanning of congested areas, the zoning of industrial areas and the preservation of the countryside will be seriously hampered.

"Further that it is necessary that the present provisions (dating from 1909) relating to compensation and betterment should be amended, so that the latter, equally with the former, shall be wholly recoverable; and that provision should be made for a form of pooling of compensation and betterment, so that when, by a scheme of planning or replanning, values in the aggregate are not depreciated, there shall be no call on local or national funds."

Mr. Lloyd declared that it was essential that they as experts should "get across" to the business world the fact that the first use of town-planning was to see that all land was put to the use for which it was best suited, always considering, of course, the requirements of the district. Town-planning, he said, was not progressing as it should do. In this country there were 262 authorities with populations of over 20,000, and of these only 204 had so far taken town-planning action. "Town-planning," he added, "is vital to our national well-being. I am convinced that a great deal of the future prosperity of agriculture in this country depends upon town-planning and regional co-ordination."

Dr. Unwin said they hoped to persuade Parliament to put the Town-planning Bill a few places up in order of precedence. It had been generally recognised that if operations with clearance and improvement areas under the Housing Act, 1930, were to be effective they must be assisted and co-ordinated by a general plan for the development and redevelopment of the whole area affected, and as the areas in which slums existed were not at present subject to town-planning powers it was necessary to secure those powers before slum clearance proposals were formulated. Power must be given for authorities to prepare effective regional schemes, for it would be folly to start slum clearance piecemeal.

Sir Theodore foreshadowed the abolition of slums. He was sure, he said, that the general trend during the next few years would be towards their abolition, for even now people need no longer live crowded and huddled together. We were beautifying our towns and reducing the concentration within them by parks, open spaces, and

boulevards. The motor-car had become responsible for the change during the past 25 years in the public conception of the development of land. It had given a greater width and breadth to transport conditions. There had been a sporadic casual development of the countryside. The destruction of rural England had probably done more than anything else to drive the public of England into accepting the conception of control developments.

ILLUMINATING ENGINEERING SOCIETY.

Lighting of Offices and Public Buildings.

A paper on this subject was read by Mr. J. A. Macintyre at a meeting of the Illuminating Engineering Society, held at 18, John-street, Adelphi, W.C., on Friday, November 14. The lecturer said that in a paper prepared by J. G. West for the International Illumination Congress (1928), on "Daylight Illumination in Respect to a Typical Building Site in a Large Town," it was pointed out that, on an isolated site 200 ft. square, surrounded on all four sides by streets 60 ft. wide, reasonable building development only gave 17,000 sq. ft. of office working area per floor out of the total 40,000 sq. ft. area of the site. Of the remainder, 11,000 sq. ft. was taken up in corridors and stairs, and the light well was 12,000 sq. ft. in area. The parapets of surrounding buildings were assumed to be 80 ft. high, and under these conditions only the offices on the three upper floors facing the streets and on the five upper floors facing the light well could be said to be lit adequately throughout the whole of their area at desk level. Of the total area at this level on all floors about 26 per cent. would not get adequate daylight. The total office area on all floors was 133,000 sq. ft., of which no less than 100,000 sq. ft. was adequately lit. This figure could have been increased slightly by making the light well smaller, but at the same time the area inadequately lit would have been increased in greater proportion.

It would be seen, therefore, that even when a client was prepared to, or perhaps one might say forced to, sacrifice more than one-third of his site as light-well area and have his corridors in the darker portion of the building, as was assumed in this case, he was still left with nearly a third of his office accommodation which must have artificial light at all hours if it was to be used effectively. It might be contended that the light-well area was wanted for ventilation in any case, but it would be an easy matter to get all the air required through a very much smaller well.

There were one or two ways in which improvement was possible without introducing any structural difficulties. The first and probably most obvious of these was by the use of bulkhead lights on the lower floors, but few architects would adopt these in this class of building, and it must be admitted that there was something not quite pleasing in a room lit in this way. The area of the two lower floors facing the light well which was adequately lit could be increased without affecting the lighting of any other part of the building by projecting the rooms into the light well and sloping the windows.

A third method, and one which seemed to be more deserving of attention than it got, was by the use of reflection. In the above analysis it had been assumed that all parts of the working planes in the rooms which got light direct from the sky were adequately lit and vice versa. We knew by long experience that this would be so in such a building where no special provision was made to alter the direction of light by special devices, and it was from this aspect that illuminating engineers might be able to give valuable help. Apart from glazed bricks and tiles, there might be said to be only two forms of reflectors in common use, namely, prismatic glass and the fluted mirror, generally placed hard up on the window and set to throw light on the ceiling. Both were reasonably effective, but prismatic glass especially got dirty quickly and its non-transparency accentuated the effect produced by the dirty surfaces. Usually the mirrors could not be set to throw light directly on the working plane without producing glare when the sky was bright. In two cases tried recently secondary mirrors were placed inside the room set to throw the light reflected from the outside mirror on to the tables, and these proved satisfactory, but the appearance of the mirrors themselves was rather objectionable. They were regarded in these cases purely as useful fittings, and no effort was made to fit them in positions where they would not be offensive. Had the architect who designed the building taken the trouble to work out the daylight factors of these particular rooms he would have realised what was wanted, and the mirrors might have been an integral part of his structure. There seemed to be no fundamental reason that a mirror at inside cornice level or even on a ceiling need be more offensive than an overmantel, if the interior plaster work was designed to take it, nor was there any necessity for the outside reflector being hard up on the window. It was hardly necessary to say that he did not advocate the use of reflectors, even when properly designed parts of the structure, as being equal to direct skylighting, but they appeared to be the best substitute and could be used frequently to increase the value of a room with more satisfactory results than could be obtained from artificial-lighting fittings.

An interesting problem in daylight lighting which appeared to have been solved satisfactorily by the use of reflectors arose this year at the National Portrait Gallery, Trafalgar-square. The picture showing a group of our statesmen who were in office during the Great War, painted by the late Sir James Guthrie and presented to the nation, had to be housed in a room in which the outside obstruction was such that the cut-off of the sky struck diagonally across the wall on which the picture had to be hung. Sir James Guthrie would not agree to have artificial illumination only, nor that the darker side of the picture could be so dealt with, even when assured that the daylight colour could be matched nearly enough, and that this was the more direct and probably the more economical method. He actually refused to agree to the picture being hung in the room at all unless the daylight was made satisfactory; but, on the other hand, offered to meet the cost of experiments with reflectors up to a very generous figure, as he agreed that the room in all other respects was a suitable home for his work.

The form of external reflector used consisted of 50 mirrors (12 in. square) mounted in a steel frame, and each on an independent ball joint, so that it could be set to throw light on any part of the wall desired. This was placed just outside the window adjacent to the wall on which the picture was hung, and in addition eight internal mirrors about 3 ft. by 2 ft. were fitted inside the room on the opposite wall, set to catch the light from some sections of the outside reflector and throw it back on the picture, Sir James desiring this directional effect as being suited to the colouring. Fortunately the scheme was sufficiently advanced before his death for a full demonstration to be given, and he expressed himself as satisfied with the results, though he did not see the actual picture in position.

The window itself and the internal reflectors, as well as the artificial lighting fittings, were shielded to a certain extent from anyone viewing the picture from normal position by means of projecting walls terminating in a flat arch at ceiling level to form an alcove. Artificial lighting was by means of four wide angle flood lanterns, and a special feature was that the two of these remote from the window were to be controlled by means of a photo-electric cell, so that in very dull weather, when there was not enough natural light to deal with the whole area, they were automatically switched on. This arrangement was being designed at the National Physical Laboratory. The colour of the artificial light was not yet satisfactory, and new filters had to be provided.

The fact that all the mirrors, including those inside, were on ball joints made the system extremely flexible; light could be intensified or the reverse on any part of the picture desired, and when each mirror was set to the required angle it was made fast very simply by the tightening up of one nut. The original design of the scheme included sprays for cleaning the outside mirrors, but these were easily reached by hand and the sprays might not be fitted. To give further control of the light it was intended to fit vertical slats in the window, each 6 in. wide, in the form of a louvred shutter. These slats were to be made of opal glass, but, as the fittings required were all special, an economical price could not be obtained, so it was decided to postpone supplying them. Though this was a very special case and such an elaborate arrangement would be too expensive for normal use, it did illustrate what could be done, and in many common cases a very much simpler scheme might be equally effective.

INSTITUTE OF FUEL.

In a paper on "Graphical Methods of Fuel Control," read before the Institute of Fuel on November 12, Mr. Jas. Cunningham, Wh.Sch., referred to two part tariffs for electricity supply, pointing out the reasons for a tariff consisting of an item depending on the maximum demand made on the system by the consumer, and another based on the number of units actually used. Although this method of charging had been adopted in a number of isolated cases, it was still somewhat of a novelty in this country, and its application had had some rather unexpected results in the bills for power over a period. It was obvious that with a heavy peak load, the charge on this account might be considerable, and very much increase the average cost, in spite of a low rate per unit for the second item. That this was not altogether unreasonable must be clear, but the fact that costs were thus dependent on maintaining steady conditions had not been sufficiently appreciated. He then explained that a similar position existed in regard to town's gas, and that while it had been the custom to charge per unit of consumption, irrespective of peaks, various sliding scales had been used for large consumers, and explained that investigations which had been made both at home and abroad had called attention to the fact that many consumers were not bearing their fair proportion of cost, with the corollary that others were being overcharged. It then became only a question of time before the latter looked round to see if some other fuel might not prove more economical, and once a customer was lost it was by no means an easy matter to regain him. It need, therefore, cause no surprise to find that costs were being more and more closely examined, not merely as to their amount, but also as to their incidence, and that many schemes were being considered and applied to ensure an equitable distribution of them over those from whom they had to be recovered. Where the fuel was prepared in the works (as, for instance, by the use of gas producers), economy in consumption should be secured before engaging in extensive alterations in the production equipment or methods, since the whole aspect of the situation might be completely altered. While, however, seeking to reduce the cost of fuel, it must not be overlooked that this was only one item of the total expenditure, and that, while high capital expenditure might result in low cost of unit production under suitable conditions, if the use factor be low the ultimate cost would be less with plant of lower heating efficiency and higher fuel consumption.

LEGAL SECTION

NOTES ON CURRENT CASES

LANDLORD AND TENANT: CLAIM FOR RENT AND FORFEITURE.

EVEN in these days of Rent Restriction it is unusual to find tenants in possession of premises for some 14 years without having paid any rent, but in the recent case, Barratt *v.* Richardson and Cresswell (1930 1 K.B. 686) the Court had to deal with such circumstances, and to determine the effects of the Statutes of Limitation (1) on the action for forfeiture, and (2) on the arrears of rent.

The facts were as follows. By an indenture of lease one James Watts, being the owner in fee simple, leased in February, 1909, certain premises to the defendant Richardson for a term of 99 years from December 25, 1908, at a yearly rent of £6 6s. 0d., payable quarterly, the defendant covenanting for himself and his assigns to pay the said rent, and power being given to the lessor to re-enter when any part of the rent should be in arrear for 21 days. In September, 1909, James Watts had assigned the reversion to two assignees who, in October, 1914, had assigned the same to the plaintiff in this action. On April 30, 1924, by assignment the term of the lease became vested in the second defendant, Mrs. Cresswell, who, at the time of the present proceedings, was in possession of the term and the premises. By some oversight, no rent had been paid by either Richardson or Mrs. Cresswell from October 28, 1914. Richardson was not a party to the action as his whereabouts were unknown. The writ was issued January 28, 1928, claiming possession of the premises and the arrears of rent. It was pointed out in the judgment that as regards the arrears as such, apart from the question of the claim for possession, the defendant, Mrs. Cresswell, would only be liable as from the date of her interest commencing, that is, April 30, 1924, the other defendant, Richardson, being liable under his covenant for all arrears.

Mrs. Cresswell's defence was (1) that the claim to recover possession for forfeiture was barred by the Statutes of Limitation, since the right to possession first accrued more than 12 years before the action was commenced, and (2) that before action brought she had tendered six years' arrears of rent, and brought that sum into court, that being all she was liable to pay because of the Statutes of Limitation. These points raised questions of some difficulty. As regards the first point, by section 1 of the Real Property Limitation Act, 1874, "no person shall bring an action to recover any land or rent but within twelve years next after the time at which the right to bring such action shall have first accrued to some person through whom he claims. . ." but to see what is intended by the words "first accrued" the Real Property Limitation Act, 1833, section 3 (3 and 4 William IV, c. 27), has to be consulted, and it is there laid down: "When the person claiming such land or rent, or the person through whom he claims, shall have become entitled by reason of any forfeiture or breach of condition such right" (to re-enter, distrain or bring an action) "shall be deemed to have first accrued when such forfeiture was incurred or such condition broken."

The Court held that the breach of covenant to pay rent is a separate breach on each occasion when default is made under the terms of the lease, and a new right of re-entry occurs each time, and the words "first accrued" in the Act of 1833 are merely inserted to show the absolute identity in time between the right relied on as justifying the forfeiture and the commencement of the statutory period; thus, in the present case, when the writ claiming possession was issued on January 28, 1928, there were a series of such breaches, many within the statutory period of twelve years, and the plaintiff was entitled to rely on the last of such breaches of covenant or any such breach within the period of twelve years.

The writ in this case claimed (1) possession for breach of covenant, and (2) arrears of rent for 13½ years, the latter being a money claim distinct from the claim to possession; thus, the first head of Mrs. Cresswell's defence that the claim to possession was barred by reason of the Statutes of Limitation failed, but her second defence raised questions of difficulty, which must be a little amplified to enable the position to be appreciated. It amounted to this, that the defendant, having tendered and paid into Court the six years' arrears of rent, had complied with Section 212 of the Common Law Procedure Act, 1852, that being all that was legally due by reason of the limitation imposed by the Statutes of Limitation, and under the Common Law Procedure Act the proceedings for ejectment must "cease and be discontinued."

This raised the question whether the case fell within the Real Property Limitation Act, 1833, 3 and 4 William IV, c. 27, section 42, in which case the limitation would be six years, or under an Act of the same title and year, 3 and 4 William IV, c. 42, section 3, in which case the period would be twenty years. Section 42 of the first-named Act provides that "No arrears of rent or interest in respect of any sum of money charged upon or payable out of any land or rent shall be recovered but within six years next after the same shall have become overdue," whilst Section 3 of the second Act provides: "All actions of debt for rent upon an indenture of demise shall be commenced and sued upon within twenty years after the cause of action." These two Acts were passed within three weeks of each other, and the latter came into operation first, but they have been construed so that the second Act is read as creating an exception out of the first; thus, as is stated in Chitty's Statutes, "the effect of the conjoint enactment is that no more than six years' arrears of rent or interest in respect of any sum charged on or payable out of any land or rent shall be recovered by way of distress action or suit, other than and except an action of covenant, or debt on speciality, in which case the limitation is 20 years." It thus became necessary to determine on the facts of this case, whether the defendant, Mrs. Cresswell, was liable "upon an indenture of demise within the second Act, or whether the arrears of rent under the first Act were sums charged on or payable out of any land or rent."

The Court held that, so far as Richardson was concerned, the action was based upon his covenant to pay rent under the indenture of demise, and thus he could not have relied upon any limitation except 20 years, under 3 and 4 William IV., c. 42, but although Mrs. Cresswell was personally liable and her personal liability was only for six years' rent, her claim here was for relief from forfeiture on the ground that she had paid all arrears of rent due, under the Common Law Procedure Act, but that did not mean the arrears due from her personally, but all arrears due from Richardson, the covenantor under the lease, and that amount could only be tested by ascertaining what could be recovered in a personal action on the covenant from Richardson, and in such an action as we have shown above the limitation would be 20 years, thus Mrs. Cresswell's claim here failed; but it was pointed out by the Court that if she hereafter desired to obtain relief from the order of ejectment under Section 46 of the Judicature Act, 1925, she must (*inter alia*) satisfy all arrears of rent recoverable under the covenant against the original covenantor, Richardson.

A Point of Practice in Patent Law.

A point of practice in interlocutory proceedings in Patent Cases has recently been decided in the case In *re* J. H. Robertson's Application (1930, 1 Ch. 186). The applicant had applied for a grant of letters patent, and the claim was opposed on the first ground provided by Section 11, Sub-section (1) (*a*) of the Patents Act, 1907, that the applicant obtained the invention from the opponent, and also on the ground that the opponent was the first and true inventor. The opponent had applied to the Assistant Comptroller, acting for the Comptroller-General, under Section 77 as amended by the Act of 1919 for an order for discovery which was made, but the applicant, by originating summons, appealed to the Court to set the order aside. It was stated that this was the first occasion on which an order of this kind had been made by the Comptroller-General.

The point to be decided in the case was whether there was a right of appeal, and the applicant relied upon section 77, sub-section (2) of the Act of 1907, as amended, which provides: "In case any part of the evidence is taken *viva voce*, the Comptroller shall in respect of . . . taking evidence on oath, and discovery and production of documents, be in the same position in all respects as an Official Referee of the Supreme Court." Now under Order LIX A of the Rules of the Supreme Court, there is an appeal in interlocutory matters from an Official Referee, and therefore it was contended that an appeal lay in this case, and, under section 92 of the Patents Acts as consolidated, to the present court.

The Court, after pointing out that the words in section 77, sub-section (2) only applied to the position of the Comptroller and not that of the parties, held that the court had no jurisdiction to decide the appeal, for the appeal given from the Comptroller to the Law Officer in section 11, sub-section (3) covers not only the final decision but also any interlocutory order which may lead up to the final decision.

Workmen's Compensation: Cataract as an Industrial Disease.

In our Legal Section for October 31 last we referred to some cases where workmen suffering from cataract were entitled to claim compensation under section 1 of the Workmen's Compensation Act as for personal injury by accident arising out of and in the course of the employment, on the principle first recognised in Turvey *v.* Brinton (1905 A.C. 230), but there are certain diseases to which workmen are specially exposed owing to the nature of their employment, to which, in consequence, the element of accident cannot attach, and which, moreover, develop by a gradual process, and of which notice could not be given at any fixed date as in the case of accidents, and these are specially provided for in section 43 of the Workmen's Compensation Act, 1925. Certain diseases were scheduled in the Third Schedule to the Act, and as regards these diseases there appears no limit to the duration of the compensation, but by sub-section (3) of section 43 the Secretary of State may make Orders extending the provisions of the section to other diseases, either without modification or subject to such modifications as may be contained in the Order, and in the consolidating Order made in 1929 certain limitations are imposed in respect of some diseases, and amongst them cataract in glassworks and

cataract caused by exposure to rays from molten or red-hot metal. In such cases the person shall not be entitled to compensation for more than six months in all, or for more than four months unless he has undergone an operation for cataract; but if the medical referee advises that for medical reasons an operation could not be performed within four months, or that having undergone an operation the worker is still disabled after the expiration of six months, then the compensation can be continued for such further period as the judge, committee or arbitrator may direct, subject to review.

In a recent case, Leonard *v.* Redbrook Tinplate Co., Lim., (1930 1 K.B. 643), the validity of such an order in a cataract case from hot metal was challenged, but the Court of Appeal held that the Order was *intra vires* and valid, and it was pointed out that the whole Act was applied in section 43 to industrial diseases, "subject to certain modifications," besides those special powers conferred in sub-section (3) to make Orders either modified or not.

EASEMENTS OF LIGHT

In order to avoid mathematical calculations of some complexity it has been found desirable to use calculating diagrams, on which percentages of natural illumination may be determined graphically. On such charts, each unit of area, in any part of the diagram, represents an equal intensity of illumination. In most recent cases it has been the practice to assess compensation on the basis of the amount of light lost on the horizontal plane of a table level, but it must not be forgotten that, in certain circumstances, the vertical plane has also to be considered. Not infrequently, in connection with easement of light cases, it becomes necessary to measure light on wall surfaces as well as on the horizontal plane. Sometimes the lighting of a wall on which pictures are exhibited is affected; at others, it may be illumination of walls, on which books are stacked on shelves, or walls supporting card index boxes or labelled bottles, as in a chemist's shop. In such instances and in the case of light reflected from vertical walls, it becomes necessary to ascertain exactly how much direct light from the sky was received by the wall in question, under both the original and ultimate conditions. Fig. 1 illustrates a new radial form of calculating sheet, which has been devised by Mr. John Swarbrick, F.R.I.B.A., of Manchester. This form of calculating sheet, we understand, has never been published before. It will be observed that it makes allowance for the diminution of light received on the vertical plane from each zone and lune of the spherical surface of the sky. It is interesting to compare this diagram with Fig. 2, a radial calculating sheet for measuring light received from the sky on the horizontal plane of a table. This was published in Mr. Swarbrick's book on Easements of Light. It will be observed that in the latter diagram there is no variation in value between the illumination on the horizontal plane received from each lune of the domical surface of the sky.

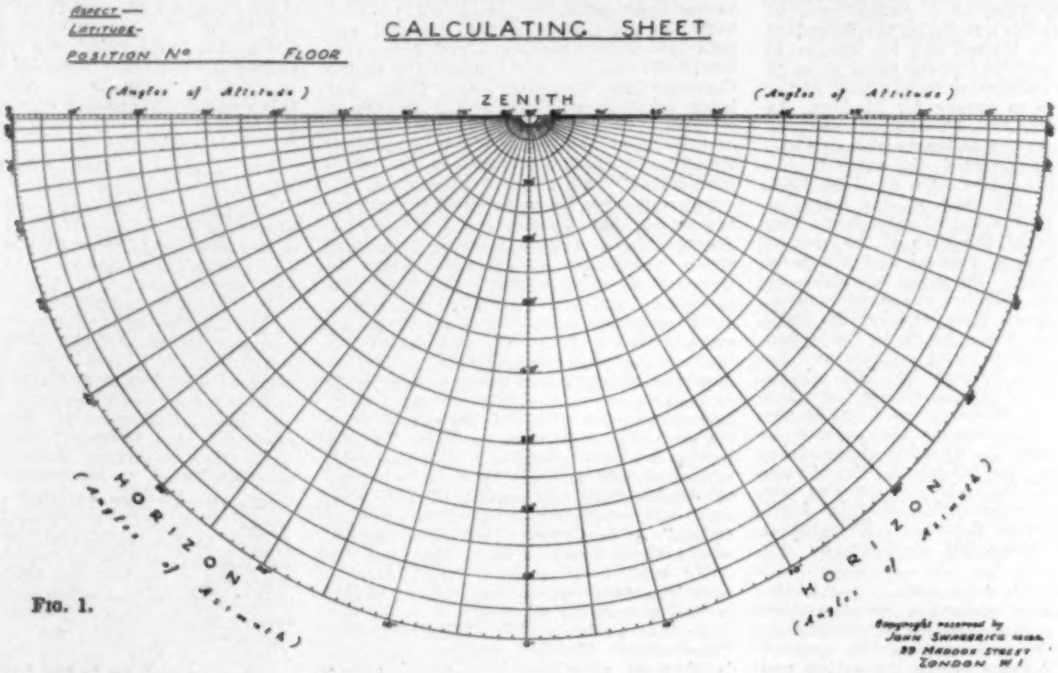


Fig. 1.

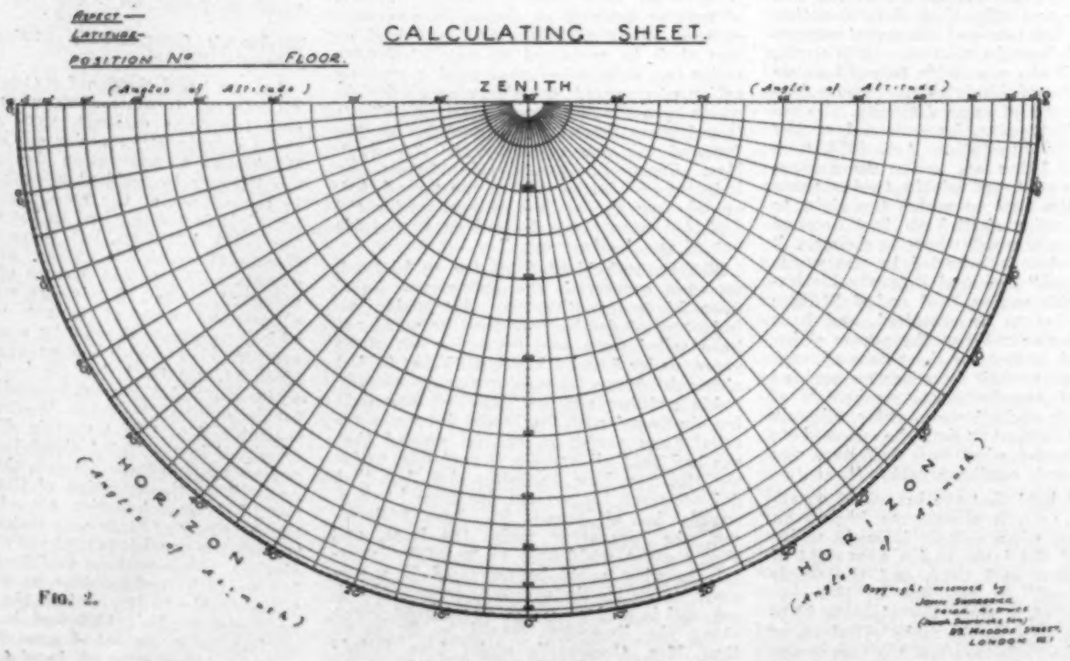


Fig. 2.

Radial Calculating Charts.

NOTES ON LONDON BUILDING ACT, 1930

By W. T. CRESWELL, Barrister-at-Law, Hon. A.R.I.B.A., Associate (late Fellow) of the Surveyors' Institution, etc.

VI.—OPEN SPACES—HEIGHT OF BUILDINGS.

Part IV. of the Act deals with the naming and numbering of streets, but we pass on to Part V., which determines the size of open spaces which must be left about buildings and the heights of the buildings themselves.

Open spaces are required to be provided adjacent to domestic buildings, but not to buildings used or constructed or adapted to be used wholly or principally as offices or counting-houses. So caretakers' quarters within such offices or counting-houses are excluded from the requirements. Also it would appear that hotels, lodging-houses and buildings of the like class when over 250,000 cubic feet in capacity are also excluded from the requirements incident to being regarded as coming within the class of domestic buildings (see L.C.C. *v.* Rowton Houses, Ltd., 77 L.T. 693).

Under section 43, a new building with habitable basement must without exception have an open space of 100 square feet at its rear, free from any erection above pavement level (not basement level), though not necessarily extending to the rear boundary of the land on which the building is erected.

Section 44 also requires an open space at the rear of all domestic buildings of 150 square feet, and it must extend along the whole width of the building, and at least 10 feet back from it, measured at the level of the adjoining pavement (apparently the pavement in front). On this space a closet ashpit not exceeding 9 feet high may be placed.

When there is a basement story with the space as required in section 43 above referred to, or when there is no basement, but the ground floor is not (as in many shops) to be inhabited; or again when the street was laid out before 1895, the open space above referred to may be measured at either the level of the ceiling of the ground story or at 16 feet above pavement level; in which case a closet and ashpit may not be erected on the space, though lantern lights may.

Height of Buildings.

As heretofore, the permissible height of any building may be calculated by drawing a line at right-angles to the roadway, through the proposed centre of the front ground line of the building to the rear boundary of the site. From the point of intersection a line, in the vertical plane and at 63½ deg. angle, is drawn towards the building, and the building must not rise above this line, which is known as "the diagonal line."

The position or level of the horizontal line in new streets with sites sloping from rear to road is at the ground level at *rear* boundary and on all other sides at pavement level. In the case of streets laid out before 1895, the position in all cases is 16 feet above pavement level.

Where there is a building at the corner of two streets which has a permanent open space not less than 40 feet wide on one side, a building may be erected on that open space, but it must not exceed 30 feet in height, and, further, it must not unduly interfere with the light and air enjoyed by neighbouring buildings.

When the rear of the site abuts on a street or permanent open space, no open space is necessary; also the position of the diagonal line varies somewhat in new, from that of old, streets.

Here it may be stated that under section 17 of the Housing Act, 1925, back-to-back houses were entirely prohibited. It becomes a question of fact whether certain buildings are composed of back-to-back houses; and that is determined by the Minister of Health. See White *v.* St. Marylebone B.C. (1915), 3 K.B. 249. Section 44 does not apply to buildings abutting in their rear on to the Thames, or on to a public park or a permanent open space 80 feet deep.

By section 46, when a site has been occupied by a domestic building, at any time within seven years prior to January 1, 1895, provisions are made for the submission of plans showing the previously existing buildings, and these can be certified by the district surveyor. The plans must show sections, elevations, areas of floors, etc. A ground plan only will not suffice. See Paynter *v.* Watson (1898), 2 Q.B. 31.

Provision is made for the laying out of new streets in cleared areas, as also the provision of courts within buildings.

The general height of domestic buildings is, as we have seen, controlled by the angle of 63½ degrees referred to, though the height of all buildings generally is controlled by sections 51 and 52 of the Act. A building, a church or a chapel excepted, must not be of a greater height than 80 ft., two stories on the roof being allowed extra to this, and any ornamental towers, turrets or other architectural features and decorations. A building which existed on August 25, 1894, may be rebuilt to the same height as originally. So also in any building which forms part of a continuous row or block and existing at the last-named date may be rebuilt to the same height as the rest of the block or row. A building may, on the consent of the county council being obtained, under section 52, be erected to a greater height than 80 feet, but the aggrieved owner or lessee of any building or land within one hundred yards, or any other applicant for consent which has been previously refused, may appeal to the tribunal of appeal against the intended height.

A recent interesting case was that in respect to Messrs. Swan and Edgar's premises in Regent-street The height of their premises was necessary to conform with the general line of Regent-street, and possibly to comply with other requirements. The London County Council consented to their erection on condition that the top floor should not be used. The legality of this imposition was questioned, but nevertheless upheld.

Generally, in streets laid out before 1862, a building may be 80 ft. high; likewise in those laid out since 1862 and over 50 ft. wide. But where the street is less than 50 ft. wide, a building must not exceed the width of the street.

ILLUSTRATIONS

(*Continued from page* 912.)

the design is the accommodation provided for councillors and officials' motor-cars. This takes the form of a large covered garage and open courtyard at the basement level, approached by a sloping way from Birley-street. This sloping way also serves as a general goods entrance.

The main entrance to the building itself is placed in the centre of the Lancaster-road façade, and an imposing staircase gives access to all floors. A passenger lift is also provided. The building can also be entered from Birley-street, and a subsidiary staircase is provided in close proximity to this latter entrance. The chief feature of the ground floor is a rates office, 56 ft. by 45 ft. in size, and adequately lighted by large windows in its two side walls. A large suite of offices for the borough treasurer and the medical officer and their respective staffs are also provided on this floor.

The first floor is devoted entirely to the town clerk's department, the council chamber, committee rooms (five in number and of varying sizes), the mayor's parlour, members' retiring rooms, and cloakroom and lavatory accommodation for both sexes. The council chamber takes up a central position over the rates office, and accommodates 62 persons, as well as the officials, the seats being arranged in horseshoe form. It is approached through a spacious ante-chamber 46 ft. long and 14 ft. wide. A gallery over this ante-chamber provides accommodation for the general public.

The second floor accommodates the borough engineer's and water engineer's department, and the third floor is devoted to the education department and the caretaker's rooms, the remainder of the floor area representing unallotted space, which will be utilised to house fresh departments, or as extensions to existing ones, in the future. The basement provides the garage previously referred to, ample storage for every department in the building, space for bicycles, and the usual heating chamber and fuel store.

The Birley-street and Lancaster-road elevations are practically similar, with the exception that the entrance giving access to the sloping way for motor-cars does not occur on the Lancaster-road front, and neither do the basement windows, as this latter thoroughfare is at a higher level than Birley-street.

As will be seen from the perspective view, the new building is of practically similar height to the adjoining County Offices, and every consideration has been given to carrying through the lines of this latter building as regards string courses and cornices.

Stone facings are proposed for both the Birley-street and Lancaster-road façades, and cream-coloured bricks for the internal courtyards. Fireproof construction will be employed throughout, and the flat concrete roofs will be rendered with asphalt.

Messrs. Briggs and Thornely, F.R.I.B.A., are the architects.

R.I.B.A. Testimonies of Study.

This design for "A Housing Scheme in the North-West London Area" was recently submitted by Mr. B. F. Ratcliffe, as one of his Testimonies of Study for the R.I.B.A. Final Examination. The Board of Architectural Education wish it to be known that these Testimonies of Study are published for the guidance of students, not as perfect solutions of the subject, but to show the general standard of Testimonies of Study approved by the R.I.B.A.

The Liverpool Cenotaph.

This Cenotaph (illustrated on page 906) occupies a central position on St. George's Hall plateau, and has been designed to harmonise both in shape and material with the main lines and fabric of St. George's Hall itself. Its general form is that of a rectangular altar raised upon a stone platform, the purpose of the latter being to give a special setting to the monument, to elevate it above the level of the plateau and to afford a protected space on which wreaths might be laid. The main mass of the Cenotaph is 35 feet long and 11 feet high. It is constructed of Stancliffe stone, obtained, like the stone of which St. George's Hall is built, from the Darley Dale quarries in Derbyshire. For the platform supporting the Cenotaph, Yorkshire Silex stone has been used. The four corners of this platform, which measured 61 feet in length and 15 feet in breadth, are emphasised by terminal blocks. Access to the upper surface of the platform is gained by steps between the blocks at each of the shorter ends.

Bronze panels in relief, each 31 feet in length, are the principal features of the longer sides of the monument. These represent contrasting aspects of the Great War. The end elevations of the monument are identical. In each case they are marked by a symbol of defence, a bronze circular shield bearing the Civic Arms of Liverpool and by pendant bronze festoons with the dates 1914-1919 inscribed beneath.

The Cenotaph has been designed and its execution supervised by Professor Lionel B. Budden, M.A., F.R.I.B.A., of the University of Liverpool. Mr. G. H. Tyson Smith, A.R.B.S., of Liverpool, is responsible for the sculpture, for the modelling of the enrichments, and for the cutting of the lettering on the monument.

THE WEEK IN PARLIAMENT

WESTMINSTER, Wednesday.

Town Planning Schemes.

Mr. D. G. Somerville asked the Minister of Health if, in the different town-planning schemes submitted to him, he was giving full consideration to the objections, properly formulated, of residents who considered that the proposals affected the amenities of the district in which they lived, and whether an inquiry was held in all such cases.

Mr. Greenwood said that the answer to both parts of the question was in the affirmative. The permission of development while a town-planning scheme was in course of preparation, however, rested with the local authority concerned, and there was no appeal to him against the granting of such permission. He had recommended local authorities to ascertain and consider the representations of persons likely to be seriously affected by any proposed development before granting permission for it, and he believed that local authorities generally observed the spirit of his recommendation.

The 1924 Housing Act.

Sir K. Wood asked the Minister whether, having regard to the decrease in the number of houses completed during the year ended 30th September under the Housing (Financial Provisions) Act, 1924, as compared with the three previous years, he proposed to bring forward any new proposals to stimulate the provision of houses to let at rents within the capacity to pay of the working classes.

Mr. Greenwood said that over 51,000 houses were built under this Act in England and Wales during the year ended September 30, 1930, and, when allowance was made for the disturbing effect of housing legislation during the year, he did not regard a reduction of about 2,000 as compared with the two previous years as so substantial as to require new legislation.

Russian Doors.

Mr. Graham, President of the Board of Trade, informed Sir W. Davison that during the three months ending September 30 last builders' woodwork (window frames, doors, etc.) to the value of £10,782 was imported from Russia.

Steel for Buildings.

During a recent debate on the condition of the iron and steel industry, Miss Wilkinson, a Labour Member, said that they needed to get rid of the antiquated building restrictions which were preventing the use of steel. They knew of a ridiculous case, not far from the House of Commons, where there was a large building costing many thousands of pounds, and where, because of the antiquated regulations of the L.C.C., the top story could not be used. No one could suggest that it was not as safe as any other story, but it did not happen to fit in with the specific regulations which were framed with no idea of the use of steel in that building. If they had a national board, speaking on behalf of the whole industry, they could deal with public departments in a way that the individual steel manufacturers could not do. They must get rid of the system under which architects, decorators and furnishers clung to the idea that there was something sacred in the use of wood, and that steel was a thing with which only Bolshevists would have anything to do. Some new designs in steel furniture might well be considered by the steel trade. France was far in advance of us in the use of steel for home and office furniture.

Architects and School Buildings.

Major Edmondson asked the President of the Board of Education whether local authorities could obtain information from the Board as to its requirements with regard to cubic space per child to enable them to make preliminary estimates as to the cost of new school buildings; was he aware that it was important to the education department of local authorities that the department should be in a position to give to their finance committee a reasonably accurate provisional estimate of the probable cost of such buildings before they embarked upon the expense of obtaining architects' plans; and would the Board of Education give their final consent for the erection of a school where an application for a grant was made before the finished plans were produced for their inspection?

Sir C. Trevelyan said that the advice of the Board's architects' department and of His Majesty's inspectors was at the disposal of local education authorities which were contemplating the erection of new school buildings at all stages, from the inception of the project to the final approval of plans. It was the Board's practice to approve in principle the erection of a new school prior to the submission of finished plans, but their final sanction was dependent on their approval of such plans.

The British Granite Industry.

In the House of Lords, Lord Mersey asked the Government whether any development could be made in the employment of British labour and material in the quarrying industry, more particularly as regarded road construction. He said that the owners of the granite quarries in Cornwall, the Midlands and Scotland could not, or did not, meet the requirements of the highway authorities for granite kerbs for road construction. Nearly all our granite kerbs at present came from Norway. Apparently our quarry owners were unable to produce the kerbs in anything like sufficient time, and they were unable to produce them of the required length. The owners said that there was not sufficient skilled labour available. In Norway semi-skilled labour was employed to produce the kerbs, which were machine-cut. Another answer of British quarry owners was that the road authorities should use a different sort of material. The Unemployment Grants Committee were very much exercised over the position, and the Chairman (Lord St. Davids) had stated that it might be well for the Government to consider opening a quarry of their own. While he did not advocate that, he asked the Government if they could throw any light on the incapacity of the British quarry owners to deal with a matter which required very different treatment, with a little more vision and a little more activity.

Lord Ponsonby (the Parliamentary Secretary to the Ministry of Transport) said that the present state of affairs was very disappointing. There had been an enormous increase in road construction in recent years. The present Government had approved the expenditure of £50,000,000 during the last year for the construction and widening of classified roads. Although a gigantic amount of broken stone was required—12,000,000 tons a year for 40,000 miles of classified roads—only 172,000 tons had been imported in the last nine months, so that no particular problem arose with regard to broken stone. But the question of granite kerbs was different. British granite was undoubtedly superior to concrete kerb, which was being manufactured now under the orders of some local authorities in their anxiety not to import foreign granite. The granite kerbs, however, were far more durable and more satisfactory. Hundreds and thousands of feet of granite kerb were required. In Leicestershire very satisfactory progress had been made in the production of granite kerbs. In the past three months 4,000 tons had been produced, compared with 3,500 tons last year. The owners were making every effort to get their organisation into a more efficient state, and were succeeding. No blame could be attached to local authorities, which were hampered by the question of price. It was cheaper to send granite kerbs from Norway to the East Coast of England than from the West of England. It would be most unfair not to realise that the quarry owners were up against difficulties. The owners might consider the question of coast-wise steamers for carrying this stone. The Minister of Transport had recommended that they should set up within their industry an organisation devised to secure efficient propaganda in favour of British quarry products, and that they should adopt a policy of standardisation and secure co-operation between the industry and various transport agencies for prompt and reliable deliveries, if need be, by sea-borne transport. He felt that they could put their house in order and meet the demand that existed for their material.

Compensation for Mining Subsidences.

Mr. Mardy Jones has brought in a Bill to provide for the payment of compensation in respect of mining subsidence damage to dwelling-houses and other buildings.

Town Planning.

The Government's new town-planning Bill may shortly be expected, according to a statement made recently by Miss Susan Lawrence, the Parliamentary Secretary to the Ministry of Health. A meeting of the Parliamentary Amenities group was held at the House of Commons last week to discuss town and regional planning in relation to the contemplated legislation. Mr. Percy Hurd presided, and the following resolution was carried unanimously:—"In the opinion of this Committee, the effect, for good or ill, which the rating or taxation of land values or increment must have on the development of land will be great and far-reaching. It is essential, therefore, that before any proposals for land value taxation are formulated their relation to town planning principles and legislation should be thoroughly examined, and that the Town Planning Bill should be introduced at the earliest possible moment." Authority was also given for the arrangement of a deputation to meet the Chancellor of the Exchequer and the Minister of Health as the circumstances might require.

At question time, Sir K. Wood asked the Minister of Health whether he proposed to appoint an advisory committee, consisting of experts in town planning, representatives of the local authorities, and civil servants, to consider the present schemes of the regional town planning committees, and select those which could be put into immediate operation.

Mr. Greenwood said that many reports had been issued by Advisory Regional Committees, but those were far from being approved schemes. No regional schemes had been approved, though many proposals of a regional character were embodied in approved town plans or preliminary statements, and several had been or were being carried out by local authorities. He was not at present satisfied that any useful purpose would be served by such a committee as that suggested, but the matter was being further considered.

Steel Bridges.

Sir Robert Aske asked the Minister of Transport whether he was aware that an urgent need existed in many parts of the country for the construction or reconstruction of iron or steel bridges; whether, in view of the number of unemployed in the iron and steel trades, the Government proposed to take steps in the near future for the provision of such bridges; and whether the Government had formulated any definite schemes for this purpose.

Mr. Morrison said that the construction or reconstruction of a large number of bridges was included in the programmes of work now being carried out for the relief of unemployment with assistance from the Road Fund. He regarded work of this kind as desirable, and had encouraged highway authorities to undertake such schemes. The choice of material rested, however, primarily with the responsible highway authority, and was governed largely by local and technical considerations. Iron and steel were being utilised to a very considerable extent.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting?—ED.

Composition Material.

SIR,—Can any reader give particulars of a composition or plastic material that can be laid *in situ*, on wire mesh or otherwise, as a flooring surface, ground and upper floors, in substitution of the ordinary flooring boards, and suitable for cottage and villa work? If so, some approximate idea of the cost would be appreciated.

C. L. FIELDER.

Plastering Breeze Slabs.

[REPLIES TO "SURVEYOR," NOVEMBER 21.]

SIR,—No material can be perfectly safe from blows in the plastering where "live" coal is embodied. No doubt Portland cement and sand backing finished in Keene's cement would be best for covering the partition, and the most likely to resist the action of the coal, but there can be no guarantee of this.

W. MILLER.

SIR,—Coal in breeze slabs in some districts is as commonly met with as weeds in a garden. There are sometimes more harmful admixtures than a trifle of small coal particles to be found in breeze blocks, but the proposed cement and Keene's rendering will make it possible to forget the trifle of combustible material in the partition in question.

W. PATTISON.

SIR,—Live fuel in the breeze is quite fatal to plastering. Every particle will blow, whatever plastering is used. Where a blow-hole occurs, it is important to take out the live unit before making good. If there are many of these particles I should advise covering the walls with a good wallboard.

INERT.

Cleaning Concrete Floor.

[REPLIES TO "BUILDERS," NOVEMBER 14.]

SIR,—Oil stains on concrete floors may be removed by using a solution of 1 lb. oxalic acid to every three gallons of water, with the addition of sufficient wheat flour to make a paste that can be applied with a brush. This should be allowed to remain on the stains for about two days and then removed with clean water and a stiff brush. In stubborn cases a second application may be necessary.

T. J. CLARK.

SIR,—Concrete or masonry should never be cleaned by acids, and even soda and its compounds are prohibited in best practice, because of the later effects by efflorescence, disintegration, etc., of the products formed. There are, however, materials available nowadays that do not react with cement or lime-bearing masonry, contain no soda, potash, borax, or any of this type of material, and yet are really good building soaps, purchasable both in the liquid, paste and lump states, and used with water like other soaps, but are ten or twenty times more powerful as grease and soot removers, etc.

W. PATTISON.

[A reply to this inquiry has been forwarded to our correspondent.]

Dampness on Chimney Face.

[REPLIES TO "J. T. M.," NOVEMBER 21.]

SIR,—Your correspondent seems very certain that no rain drives down the flue, but the flue has yet to be designed which does not admit some rain where it emits smoke. Generally this is caught on the first bend of the flue, and is absorbed into the bulk of the work no more rapidly than evaporation can cope with. In the present case it may be that the vagaries of adjacent flue-pipes direct more than a fair share of rain down this particular flue, and that it is a straight flue down to near the ground-floor position. The rain might be caught on a near bend and partially soak a portion of the chimney breast. Why not try a covered chimney-pot, or, if one is in use, have it turned a quarter turn and refixed?

PRACTICE.

SIR,—If querist's own explanation is not correct, it may be that a leak from higher up has got through the chimney, runs down in a trickle inside, until it meets an opening into a cavity, and from such a point distributes itself in the face of the chimney, showing as dampness on the inside plaster in that area. This appears quite as feasible as the condensation and damp soot theory, as I have met with the same trouble where damp soot was impossible. Besides, the area of those damp spots is generally localised, which again discounts the idea of accumulated dampness in soot layers.

W. PATTISON.

SIR,—It would appear from "J. T. M.'s" inquiry that the damp is, as he suggests, caused by the condensation in the chimney. If this is the case, the stains would be reddish brown, and I would suggest that the plaster on the chimney breast be cut away and the wall rendered with cement and sand and a waterproofer, and afterwards skimmed over with plaster. We have a similar difficulty at the moment, but our client insists that the trouble is on the roof or chimney gutter, and although we have been trying for nearly two years, we cannot locate a leak.

R. C. W.

Varnish Thickening.

[REPLY TO "H. H.," NOVEMBER 14.]

SIR,—If querist has bought this varnish from a reputable large varnish works, the latter will certainly exchange it for him, as undue and premature thickening of the material in the tins is one of the points that a varnish chemist is employed to deal with. If, however, the material is in another class, and there is no other fault in the varnish except undue thickening, it can be easily cured by a very small addition of a suitable solvent. Benzol, tetralin, and this type of solvent might be suitable.

W. PATTISON.

Utilisation of Joinery Shop Waste.

[REPLY TO "J. S. M.," NOVEMBER 21.]

SIR,—It is almost impossible to use it unless the production of waste is immense. Fire lighters are overdone, and patent tiles, while using sawdust, require but a very small percentage. Wood flour has a sale, but requires special mills, and current books on utilisation of wood waste do not touch the fringe of the problem of the producer of a few tons of waste weekly.

Wood meal or flour, if of the right type for the market, will be saleable, and also a lightweight rough-textured building board might be interesting if the production were, say, ten times as much; but with only a few tons weekly, it is difficult to get a new commodity made at a sufficiently low cost to sell easily, even though the technical questions connected with binding materials and methods may all be solved.

W. PATTISON.

Toning Down New Tiles.

SIR,—To tone down the flat and sharp colouring of many types of pigmented tiles is an easy matter with mineral stains, which, fortunately, do not stain the surface evenly, but produce a really good colour-blended effect, and without any jazziness or high colouring. Stains can be divided among the spirit soluble types, such as a whole series of copper, nickel, etc., compounds, and the water soluble materials, generally iron compounds; the former being simply a tenacious adherent film, and the latter type giving the required coloration only when the salts present combine with the lime in the concrete, or lime compounds specially introduced to develop the staining effects sought.

W. PATTISON.

Cost of Factory Buildings.

SIR,—We should be obliged if any reader could give the average cost per foot cube of the following steel-framed, brick, Atlas White cement finish buildings, erected in the Metropolitan area—2-story office block to a factory; 1-story saw-tooth roof factory.

C. C. L.

Corrugated Sheets.

[REPLY TO "INQUIRER," NOVEMBER 21.]

SIR,—If the leather washers are those provided by the makers of the sheets, they are probably the best means available, and as soon as the washers have swelled up and the sheets weathered, there should be no recurrence of the trouble.

METHOD.

Temperature of Cellars.

SIR,—Could a correspondent tell me the correct temperature that should be maintained respectively in beer and wine cellars? I would also like to be referred to any good standard works upon the planning of licensed premises, and also the laws governing such licences.

PLANNER.

Combined Drainage.

[REPLY TO "QUERY," NOVEMBER 21.]

SIR,—A "drain" is a pipe or conduit laid for the purpose of draining one building only, or premises within the same curtilage. The word "sewer" means and includes sewers and drains of every description except "drain" as above interpreted. When a pipe or conduit drains more than one building it is a "sewer," and reparable by the inhabitants at large. On this principle it may be that at, and from, the junction where the two buildings discharge into one common pipe or conduit there is "combined drainage," for which the local authority is responsible. So much depends on whether any sanction was given at the time the pipes were laid, and the date when they were laid; also, whether they are situated in the Metropolis or outside the Metropolis.

All this is given to assist the inquirer who has quoted a specific clause fixing in a measure where the liability rests as between adjoining houses. It is presumed that the clause refers to both houses. Therefore, in construing the clause, and bearing in mind all the above, it does seem that "Query" is liable for the stoppage if it took place in the branch drain leading from No. 1 alone; but that if it was found in a "combined drain," *i.e.*, after the junction of the drains from both Nos. 1 and 3, the cost would be borne by the occupiers of Nos. 1 and 3 in equal parts.

SURVEYOR.

Whitworth Scholarships.

The time-table (Form 67U.) has been published by the Board of Education concerning the Science Scholarships examinations, and examinations for Whitworth scholarships and Whitworth senior scholarships, 1931, and is obtained from the Board, at Whitehall, S.W.1.

York's Mediæval Houses.

Through the public spirit of Mr. Cuthbert Morrell, who has already restored three of York's mediæval houses, the city will have another fine example of fifteenth century domestic architecture preserved for future generations. A fine old half-timbered house in Goodramgate, which would have been demolished, has been purchased by Mr. Morrell, and under the direction of Mr. Harvey Rutherford, the archæologist and architect, it is being preserved and restored. The frontage is peculiarly interesting. There is an overhanging first-floor with a projecting bay which goes out to the line of the second overhang of the story above. The whole of this front was formerly plastered. It has now been cleared, revealing the timber frames of the original building with their timber struts. All the frame timbers are retained.

THE BUILDING TRADE

RECURRING DEFECTS: THEIR CAUSE, PREVENTION AND CURE.—XXI

By J. R. TAYLOR.

IMPROVING THE CAVITY.

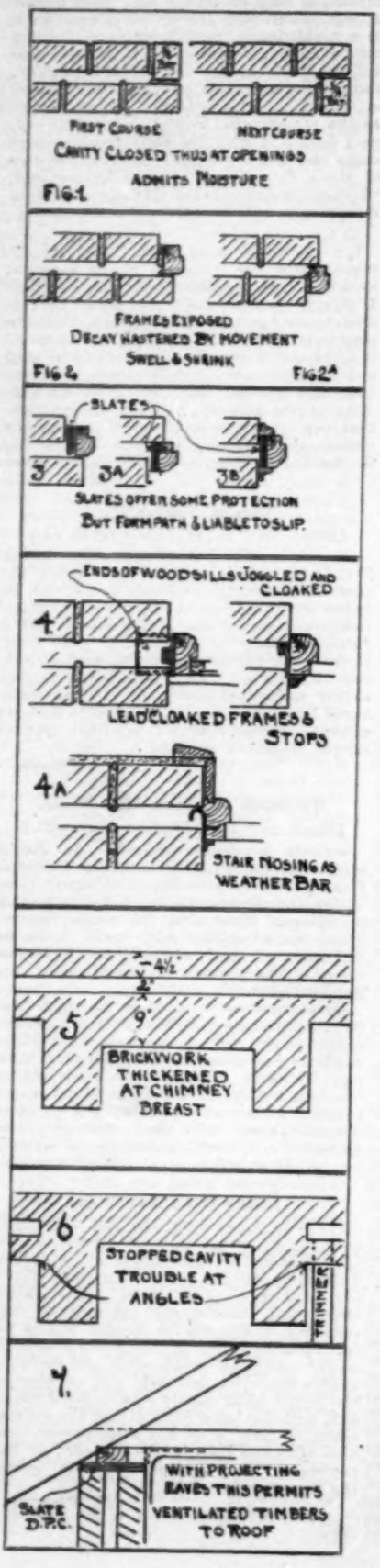
As ordinarily constructed, that is to say in their 11-in. form, cavity walls do not afford resistance to wind-driven rain. But though I have more faith in a solid wall, provided that it is well built in bricks of close texture and with all the joints solidly filled with waterproofed cement mortar, I am no doubt one of a minority.

The main object of these articles is to point out the minor rather than the major defects, and to suggest local rather than general remedies, because it is assumed that most readers desire to design or build in a creditable manner, and will not therefore shut their eyes to the consequences of obviously bad materials or workmanship. Though they may not be prepared to go all the way with me, and abandon 11-in. cavity construction, they may still welcome a reconsideration of some of its weaknesses in detail with suggestions for its improvement. I have therefore prepared a few sketches of methods in use, together with others that appear to overcome or get around some of the difficulties.

Sketch 1.—Every winter brings a crop of complaints from householders who, though occupying houses built cavity fashion, find that moisture enters in various parts, but particularly round the window and door openings. On examination it is often found that the cavities have been closed at these openings, as shown. This form of closing is adopted with great frequency, particularly with iron casements. The casement frame is bedded with mastic and some reliance is placed on the plastering to internal reveals. Nothing could be much worse, because what it all amounts to is that just at the point where the work is called upon to resist the heaviest attack it fails because it is reduced to 11-in. solid brickwork, which is often faced with bricks that would not be used except in cavity work. It has to be remembered that the external reveals are attacked at the returns as well as at the fronts and get more than their fair share of rain, because some of that which flows down the glass is blown against the reveal. During the prolonged spell of rain with wind nearly constant that marked last winter, the effects were so strikingly demonstrated that they are worth recounting at some length.

The building observed was designed by a first-class architect and erected by a really good builder with the assistance and under the close supervision of an able and experienced clerk of works. Above the plinth the walls were built 11-in. cavity, faced with multicoloured rustics laid in exceptionally rich lime mortar. The windows were of steel with semicircular heads set in openings having the cavity closed solid and finished with purpose-made arches matching facings and having 11 in. soffits. Immediately over the crown of the arches a dampcourse was laid and carried well past the opening so as to discharge into the cavities beyond. After some time damp appeared on the inside plastering up the reveals and round the arches and spread so evenly that it appeared just as though the decorator had sought to obtain relief by painting a plain margin or architrave 12 to 15 in. wide all round the windows. This occurred only on the south side (the west was blank), because with rich mortar and careful workmanship, 11 in. offered sufficient resistance to the lighter attack on the north front windows.

Sketch 2.—Wooden frames are frequently fixed in external or internal reveals formed in solid closing, or as sketch. Neither way is satisfactory, because, in the first place, the results are as already described for solid closing, and in the second the frame is attacked. Continual swelling and shrinkage



serves to break the joint between the woodwork and brickwork, and the rain penetrates in considerable quantity and flows down and across the frame jambs.

Sketches 3, 3A, and 3B.—These show various methods of closing up the cavity with slate slips. They require to be in two thicknesses to break joint, and various methods are adopted for holding them in place. If any slip occurs, as, for instance, through doors banging in high wind or because of disturbance if the frames swell, they cannot generally be put right without removal of the frame. In some cases (particularly with iron casements) the slates are wholly or partly covered with plasterwork and they cannot then be said to afford a good key.

Sketch 4.—Various methods may be adopted for cloaking wood frames with lead, and probably this is the most satisfactory way of closing up the cavity against wood frames. The introduction of a fillet insures that the water will not travel across the frame to the inner skin. The lead may be as light as 3 lb. per ft. super, but should be protected from the effects of lime. One decided advantage that this method possesses is that as the lead can be readily dressed over the joggles of the cill, better fixing may be obtained. This is important, because blown-out windows occur not infrequently in high winds. Sketch 4A shows how a metal strip similar in section to a stair nosing might be utilised.

Sketches 5 and 6.—If the cavity is carried through at the back of a chimney breast the brickwork should be thicked out as Fig. 6. When this is not done, unless flue liners are used, there is a grave risk of smoke, soot, and fumes, etc., finding a way into the cavities, and thence into the floors. I have known a case where this happened, and was detected by reason of smoke issuing from behind the architraves of a window near by. A smell of smoke in a bedroom is often noticed owing to the failure of the midfeathers when the pargeting has loosened. Fireclay backs burn out in time and are seldom replaced as promptly as they ought to be. An examination of a flue just above the throat generally reveals that not only has the pargeting disappeared but the face and joints of brickwork have suffered from the heat. It is a common practice to use a blower (or a newspaper) to "brisk up" a fire, and the flames and ignited gas then flare up the flue for a considerable distance. Fig. 6 shows a frequent but very weak form of construction. Almost invariably, outside the operation of the London Building Acts, trimmer-ends enter the cavity at both first-floor and bedroom ceiling level. Damp follows and shows along the recess walls if not hidden by cupboards, and is sometimes the occasion of dry rot in the cupboards. Not infrequently a black patch appears in the cornice mitre, particularly on the side up which the flue is carried past the bedroom opening. This may indicate the presence of soot or smoke as well as rainwater behind the plaster work.

Sketch 7.—At present there is a tendency in some quarters to carry up the cavity to the underside of roof covering and beamfill both skins separately. The cavity is thus sealed partly with wood and partly with slate or tile. It not infrequently happens that a slipped or missing slate at the eaves is not put right until the damp shows up in the bedroom ceiling and/or wall. With the cavity carried up to roof soffit this might result in a very considerable volume of water pouring down the cavity and doing very extensive damage. I consider the method shown to be better; but where it is used I should hesitate to weaken the slating by the introduction of sprocket pieces. Where boarding and felting cannot be afforded for the whole area of roof it is a good plan to introduce it at the eaves for a width equal to that of the roll. But it has to be borne in mind that an attack of dry rot may break out in a roof, and for this reason, if for no other, the felt should be of good quality and lathed and counter lathed. I am fully aware

that I am advocating measures that will add to the expense, but I am so impressed by the many hidden dangers of cavity construction and have experience of so many failures that I think my suggestion should be made.

Closing at Gables.

Here we find further difficulties, because there are constructional weaknesses to be dealt with as well as rain. The R.I.B.A. committee has warned us against bedding tiles at this point, and we have concentrated loads to carry at purlin ends. The outer skin bonded only with wall ties, which are usually of perishable material and often very flimsy, may be some 30 ft. in height at the ridge. This at once suggests that, unless stiffened by a chimney stack, the construction is so weak as to be intolerable. A little support may be derived by carrying the purlins over the cavity, and as a barge board is in any case desirable I propose that we sheath the purlins and pass this. But are we to carry the battens across and not bed the tiles? The Committee might well have given us a little further guidance. There are, of course, alternatives, such as a coped and flashed parapet wall, but is this practicable where cost is of such importance that we are denied the sure protection of a vertical dampcourse? Personally, I should bed a slate 12 in. wide so as to obtain 1 in. projection over facework; then, if barge boards could not be afforded, I would carry the battens over to within an inch of the edge, fill solid with waterproofed cement and bed and point either slates or tiles as the work proceeded.

Other Openings.

The usual way to close in a cavity round an air inlet ventilating shaft is to surround it with slates. But if these ventilators are above ordinary dampcourse level, as, for instance, behind radiators or at the feet of tobin tubes, this may result in leading the moisture in. In the first case it may not always be noticeable, because it is dried up by the heat from the radiator, but the plastering is weakened. In the second instance the tube, if of metal, may be rusted, or rotted if of wood.

Very difficult bridges to deal with effectively are the outgo from a closet at first floor, and the vent shaft from a geyser. If these fittings are ordered sufficiently early so as to allow of accurate measurements being taken, pierced and grooved concrete blocks to a special detail might be built in. Alternatively, stoneware blocks similar to those sometimes used for chemical fume closets might be employed.

But, as I have said before, a perfect cavity wall will prove to be a very costly matter, and I will leave it at that, with the added remark that those who are afraid that we are building so well that our work will outlast its usefulness need not worry about this where an 11-in. cavity wall is concerned. I doubt whether much of this class of work will, in the case of housing, outlast the loan periods.

(*To be continued.*)

Pinn Site Lay-Out, Ruislip.

The following report was received from the sub-committee appointed by the Ruislip-Northwood U.D.C. to consider the question of the lay-out of the Pinn site. Provision was made in the estimates at the beginning of the year for the expenditure of 75 guineas in order to obtain sketch plans and suggestions for the lay-out of the Pinn site from three landscape gardeners. The sub-committee, therefore, recommended that the following should each be invited to supply a sketch plan and detailed suggestions at a fee of 25 guineas each:—J. Wood, 5, Fitzroy-street, W.1; Percy S. Cane, 2, Westminster Palace Gardens, S.W.1; R. Wallace and Co., Ltd., The Old Gardens, Tunbridge Wells; and in the event of one or more of these declining the commission, the sub-committee recommended a selection from the following list:—J. Cheal and Sons, Ltd., Crawley; Wm. Wood and Son, Ltd., Taplow; Pulham and Son, 71, Newman-street, W.1; C. H. Evorn, Northwood. The recommendation was carried.

LANDLORD'S OR TENANT'S FIXTURES

DECORATION.

A decision important to tenants has just been delivered in the case Spyer *v.* Phillopson (*Weekly Notes*, November 1). The action was brought by the assignee of the reversion of a lease of a flat in Portland-place claiming oak panelling which had been attached to the premises by a tenant. The lease was one for 25 years from June 24, 1912, and it contained the usual tenant's repairing covenants and covenants to deliver up the premises at the end of the term with all landlord's fittings and fixtures, and all improvements and additions thereto, and provided that the tenants without permission should not cut or maim any of the walls or effect any alteration thereto.

In 1920 and 1922 the tenant had redecorated certain rooms by panelling them with very valuable antique panelling, which had been fixed by inserting wooden plugs in the walls, to which the panelling was attached by screws, which expert evidence proved was the ordinary method of affixing panelling, whether for a permanent or temporary purpose. The tenant had died, and the action was brought against his executors.

The Court held that this panelling, which had been purchased at great expense for decorating the flat when the tenant had but a few more years of the lease to run, had been put up by the tenant for his own personal enjoyment, not merely to beautify the rooms, and it would be surprising if he had spent so large a sum to lose all interest in the panelling in a short time, and the fact that some small damage might result to the structure did not outweigh these considerations.

The Court pointed out that the present law was clearly expressed by the House of Lords in Leigh *v.* Taylor (1902, A.C. 157), and we may briefly refer to that case. That was a case where tapestries were stretched over canvas attached to a frame, and the frame was nailed to the walls, and the question as to whether they were affixed to the freehold arose between a tenant for life and the remainderman. The House of Lords held that the tapestries had not been so affixed as to become part of the freehold.

In the course of the argument before the House some suggestion appears to have been put forward that there had been some change in the law, but the House indicated that the principles of law had not changed, but what had led to an apparent amelioration of the law was the fashion of the times, the mode of ornamentation and the construction of houses and the degree of attachment which was necessary, considerations which affected the application of the two principles: (1) The purpose of annexation, and (2) the degree of annexation. Lord Macnaughten, in considering whether or not the thing in controversy had become part of the freehold, put the matter thus: "To determine that question you must have regard to all the circumstances of the particular case—to the taste and fashion of the day as well as to the position in regard to the freehold of the person who is supposed to have made that which was once a mere chattel part of the realty. The mode of annexation is only one of the circumstances of the case, and not always the most important—and its relative importance is probably not what it was in ruder or simpler times." Lord Halsbury also pointed out that in this respect there was no distinction between cases between a life tenant and the remainderman and cases between landlord and tenant.

In both cases the chattels affixed were treated as mere matters of ornament, and in both cases the slight damage to the walls was treated as immaterial to the main considerations, although in Leigh *v.* Taylor Lord Shand pointed out that any damage done would have to be made good.

SLUM CLEARANCE

At a conference, arranged by the Association of Municipal Corporations to consider slum clearance in relation to the provisions of the Housing Act, 1930, held in the Central Hall, Westminster, Mr. Greenwood, Minister of Health, addressing a gathering which consisted of about 600 representatives of the great municipalities, expressed the belief that it would be possible to rid the country of slums in 10 years if public opinion on the subject was sufficiently aroused. Mr. Greenwood said the Housing Act of 1924 was still on the Statute-book, and it was not his intention that it should be a dead letter. There might be a disposition on the part of local authorities who had neglected the slums in the past to devote all their attention to that problem now, to the exclusion of their moral responsibility for the provision of additional houses to meet normal requirements. He hoped such local authorities would not swing from one extreme to another, and that in carrying out their five-years programme they would have regard to both sides of the housing problem. The Act of 1930 was no rival to the Act of 1924. It was a piece of complementary legislation, to complete the structure of the housing code as nearly as they could, and he hoped the two Acts would be administered side by side. There were two main sides of the slum problem which had to be kept distinct: there were the existing slums and there were the areas which would become slums unless that was prevented. The slum areas, many of them the relics of an age which had very low hygienic standards and which never realised the fundamental importance of giving the masses of the people decent shelter, could not be made habitable by even the most enlightened landlords, and could not be dealt with apart from wholesale destruction. Dealing with the change in the method of allocating the grant, Mr. Greenwood said it would be based not on the number of houses built, but on the number of people for whom adequate provision had been made. All the people who lived in the slums were not below the poverty line. It had been estimated that 40 per cent. could not afford to pay the normal rents, but that the others could, and local authorities would be able to assist the people who were unable to meet the normal rent. There was not much point in undertaking root-and-branch schemes to destroy the slums, if areas were to be allowed to degenerate into slums. Once an area had been tidied up it was the responsibility of the local authorities to see that it did not degenerate, and therefore they must apply special regulations and by-laws which would keep those areas as good as they had been made originally.

ESSEX EDUCATIONAL EXTENSIONS

The agenda of the Essex County Council shows that the Education Committee recommend the expenditure of £204,137 upon educational building extensions. The principal items include:—£4,814 for assembly hall and fittings at the County High School, Clacton-on-Sea; £10,463 for additional accommodation, etc., at County High School, Maldon; £7,050, gymnasium, classroom, dining and kitchen accommodation at the Sir George Monoux High School, Walthamstow; £4,141 for enlargement of Braintree Intermediate Elementary School; £7,624 for the additional accommodation at Braintree Chapel Hill Elementary School; £8,895 for enlargement of elementary school at Great Burstead; £21,043 for new school at Rainham-road, Hornchurch; £21,169 for enlargement of the Pitsea school; £23,231 for new central school at Rochford; £22,212 for new central school at Rainham; £17,450 for enlargement of the Romford (Salisbury-road) school; and £11,576 for enlargement of the Romford (London-road) school. The county architect is Mr. Jno. Stuart, F.R.I.B.A., Springfield Old Court, Chelmsford.

NEW BUILDINGS IN LONDON

Acton.—Office.—An office is to be built for the T.C.

Acton. — Reconstruction. — The Town Council invites tenders for conversion of spray baths and reconstruction of slipper baths at the public baths, Salisbury-street, Acton, W.3. Mr. W. G. Cross, Assoc.M.Inst.C.E., Borough Engineer, has prepared plans.

Bayswater.—Reconstruction.—The Westbourne Park Building Society have acquired premises at 136, Westbourne-terrace, W. The premises are to be reconstructed by Messrs. E. A. Roome and Co., Ltd., Urswick-road, Hackney.

Bedford-row.—Building.—Plans are being prepared for a building for the Veteran's Association, 47, Bedford-row, W.C.1. A site has been acquired facing Bedford-row. The architect is Mr. Charles Burton, 48, Bedford-row, W.C.1.

Blandford-street.—Rebuilding.—Capt. C. Stanley Peach, 60, Warwick-square, S.W.1, has prepared plans for the rebuilding of No. 49a, and 2, Kendall-mews.

Borough High-street. — Alterations. — Messrs. John Gardner (London), Ltd., 18, Leadenhall-market, E.C.3, have under consideration a scheme of alterations to the Bridge House Hotel, at No. 4. Plans by their staff architect, Mr. Westerman.

Botwell.—School.—A Catholic School is being erected on land adjoining Botwell House. The contractors are Messrs. Sewell and Richardson, Ellson Works, Railway-place, Wimbledon, S.W.19. The estimated cost of the scheme is £8,000. Mr. J. Wallace Gregory, P.A.S.I., 3, Victoria-street, Westminster, S.W.1, is the architect.

Bruton-street. — Rebuilding. — Mr. W. Courtney Le Maitre, F.R.I.B.A., 28, Albemarle-street, W.1, has prepared plans for a block of business premises on the site of No. 30.

Bryanston-place.—Shops.—A large block of modern shops with flats over is to be erected on a site fronting Bryanston-place and Seymour-place, W.1. Plans by Mr. W. E. Masters, F.R.I.B.A., 221, Baker-street, W.1. Messrs. John Greenwood, Ltd., 12, Arthur-street, E.C.4, builders.

Camden Town.—Rebuilding.—The Development Commissioners have voted £150,000 towards the cost of rebuilding the Royal Veterinary College. Plans by Major H. P. G. Maule, F.R.I.B.A., 12, Stratford-place, W.1.

Canning Town.—Rebuilding.—Plans are being prepared for the rebuilding of the Canning Town Settlement for the Dockland Settlement, of Malvern House, Cooper-street, E.16. The scheme is estimated to cost £30,000.

Chiswick.—For two houses and four flats at Fraser-street, Chiswick, for the U.D.C., Messrs. T. Millman, Ltd., 1a, Gloucester-road, Ealing, W.5, have been accepted at £2,575. The plans are by Mr Edward Willis, engineer and surveyor to the Council.

Coulsdon.—School.—Surrey E.C. are negotiating for the purchase of land situate between Caterham-road and Tollers-lane beyond Old Coulsdon Village, for the erection of a secondary school for boys.

Croydon. — Building. — Messrs. Wallis, Gilbert & Partners, of 29, Roland-gardens, South Kensington, S.W.7, have prepared plans and are now inviting tenders for the erection of a new administration building. The work is for Messrs. Hall & Co.

Croydon.—Showrooms.—Mr. Ernest Bates, 27, Queen Victoria-street, E.C.4, is the architect for new showrooms with room over and workshop at 380-2, London-road. No building contract yet let.

Croydon. — Alterations. — Messrs. D. Morris & Sons, surveyors, 14, Regent-street, S.W.1, have had plans passed by the T.C. for alterations and additions to 63-65, South End. Building contract has not yet been placed.

Croydon. — Additions. — The Accounting and Tabulating Corporation of Great Britain, Ltd., Aurelia-road, Croydon, are having additions made to their premises in Aurelia-road. The plans are by the company's own architect's department, which will most probably carry out the building work.

Croydon.—Additions.—Mr. H. F. Gossling, A.R.I.B.A., architect, has submitted plans to the local council for alterations and additions to 31 and 32, Canning-road, Croydon. These plans have been approved and estimates for the new building are now being considered.

Ealing.—Additions.—Tenders for the erection of an additional block at Grange school are being invited by the T.C. Mr. W. R. Hicks, M.Inst.C.E., F.S.I., Borough Engineer, prepared plans.

Hammersmith.—Extensions.—Messrs. A. Pascall and Son, Ltd., Albion Works, Down-place, W.6, have secured the contract for erecting extensions to the factory premises of the General Motor and Tyre Co., Ltd., in Queen-street. The scheme involves the rebuilding of No. 81. The architect was the late Mr. H. P. Monckton, F.R.I.B.A., 32, Walbrook, E.C.4.

Hammersmith.—Garage.—Messrs. George Newton and Hill, 93, Southwark Bridge-road, S.E.1, have secured the contract for a new garage in Beaver-lane. Plans by Messrs. E. Howard and Partners, 32, St. James's-street, Westminster, S.W.1.

Hendon. — Premises.—Messrs. Johnston Evans, 194, Brent-street, Hendon, N.W., have acquired a site at the corner of Parson-street and Church-road for new business premises. Plans by Messrs. J. Stanley Beard and Clare 101, Baker-street, W.1, for the erection of an arcade of shops with flats and maisonettes above.

Hornsey.—Additions.—Messrs J. Laing & Son, Ltd., of Mill Hill, have been recommended by the Middlesex C.C., at £15,040, for alterations and additions to the High School for Girls. The County Architect is Mr. W. T. Curtis, F.R.I.B.A., 10, Great George-street, S.W.1.

Hornsey. — Alterations. — For alterations and new science block at the Stationers' Company's school, for the Middlesex C.C., Messrs. Henry Knight & Son, of Tottenham, have been recommended for acceptance. Mr. W. T. Curtis, F.R.I.B.A., 10, Great George-street, S.W.1, is the County Architect. The tender price is £25,943.

Islington. — Building. — The B.C. has placed a contract with Messrs. Pate, Ltd., Holmesdale-road, Highgate, N.6, at £1,982 for the erection of a sub-station at Upper Hornsey Rise.

Islington.—Extension.—Extensions to be erected to the factory premises in Brewer-road and Caledonian-road, for Pritchard's Restaurants, Ltd., 79, Oxford-street, W.1. Plans by Mr. John Batty, 12, Minories, E.1, and Mr. T. Woolnough, 13, The Avenue, Muswell Hill, N.16.

Kensington.—Additions.—Plans have been prepared for buildings at the Oratory Boys' Central School in Stewart's-grove, Fulham-road, for the Fathers of the Oratory, Brompton-road, S.W.7. The architect is Mr. Christian Barman, 9, Queen Anne's-gate, S.W.1.

Lambeth.—Adaptation.—The L.C.C. has accepted the tender of Messrs. C. P. Roberts and Co., Ltd., 31, High Holborn, W.C.1, at £31,900, for adaptation and additions to the London School of Printing and Kindred Trades, Lambeth.

Lewisham.—Enlargement.—The L.C.C. has accepted the estimate of Messrs. W. J. Dixon and Sons, 1, Blue Anchor-lane, Bermondsey, S.E.16, at £3,258, for enlargement of Churchdown Council school.

Lewisham.—Exchange.—H.M. Office of Works are to purchase a piece of land at the corner of Callander-road and Bromley-road in connection with the erection of a telephone exchange.

Maida Vale.—Shops.—For erection of shops and flats at Lanark Villas, at rear of 113, Maida-vale, to abut upon Sutherland-avenue, Messrs. Browne & Fulton, architects and surveyors, 502, Edgware-road, W.2, are now considering estimates.

Mill Hill.—School.—Plans of the proposed elementary school in Deans-lane, Mill Hill, have now been approved by the appropriate sub-committee of the Hendon Education Committee, and forwarded to the B. of E. for approval.

Neasden.—Factory.—The Bosch Magneto Co., are to have a new factory built. Plans have been prepared by Messrs. Hobden and Porri, 37, Finsbury-square, E.C.2. The firm's English agents are Messrs. J. A. Stevens, Ltd., 21, Upper Rathbone-place, W.1.

New Eltham.—Depot.—Messrs. Holloway Bros., of Bridge Wharf, Grosvenor-road, S.W.1, have secured the contract for a model milk-distributing dairy for the United Dairies, Ltd. The site is in Green-lane. Plans by Mr. F. T. Dear, 34, Palace-court, Bayswater, W.2.

Paddington.—Extensions.—Messrs. John Gill (Contractors), Ltd., 3, Victoria-street, S.W.1, have secured the contract for concrete pile foundations in connection with the extension of St. Mary's Hospital. The architect for the extension scheme is Sir Edwin Cooper, A.R.A., 4, Verulam-buildings, W.C.1.

Paris-gardens, S.E.—Extensions.—Messrs. J. Sainsbury's premises at Stamford-street are to be extended by the erection of offices and warehouses on a site in Paris-gardens. The St. Mary's Wharf Cartage Co., Paddington, are clearing the site. The builders are Messrs. Griggs and Son, 100, Victoria-street, S.W.1. The architect is Mr. H. Bailey, of New Malden.

Rotherhithe.—Rebuilding.—The "Albion" public-house, 20, Albion-street, is to be rebuilt for Messrs. Courage and Co., Ltd., of Horsleydown, S.E.1. Plans by the staff architect, Mr. F. M. Kirby.

Shepherd's Bush.—Film Studios.—Messrs. Willment Bros., of Baltic Wharf, Waterloo Bridge, S.E.1, have commenced excavations in connection with the large multi-storied talkie film studios for the Gaumont Company. Messrs. Bovis (1928), Ltd., 43, Upper Berkeley-street, W.1, have secured the building contract. Mr. S. B. Pritlove, 6, Sherwood-street, Piccadilly Circus, W.1, is the architect. The consulting engineer is Mr. Douglas Young, 6, Queen Anne's-gate, Westminster, S.W.1.

Southwark.—Rebuilding.—No. 5 Bedale-street, Borough Market, is shortly to be rebuilt. A warehouse is to be constructed. Plans are by Messrs. A. Cooksey and Partners, 6, Adam-street, W.C.2.

Thornton Heath.—Extensions.—The Croydon C.B. have accepted the estimate of Messrs. H. H. & F. Roll, Ltd., 87, High-street, Epsom, at £26,736 for building work for extensions to the baths.

Upper Richmond-road.—Showroom.—The Barnes U.D.C. are considering plans for new showrooms with flats over at Nos. 292-296. The plans are by Messrs. T. P. Bennett & Son, 41, Bedford-row, W.C.1.

Wandsworth-road.—Rebuilding. — Messrs. Lansdown and Brown, architects, 9, Regent-street, S.W.1, have prepared plans for the rebuilding of 219, Wandsworth-road, for Messrs. Smith and Chapple. The contractors are Messrs. William Mills and Sons, Woolwich-road, East Greenwich.

Wembley.—School.—The Middlesex C.C. have recommended, at £15,650, the estimate of Messrs. Y. J. Lovell & Son, of Gerrards Cross, Bucks, for a new primary school in College-road, Preston, near Wembley. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Great George-street, S.W.1.

Westbourne-park.—Improvements. — The G.W.R. have decided to extend their main London garage by the construction of a new shop with ten inspection pits, etc. A site adjoining the station is to be cleared. Plans by Mr. P. E. Culverhouse, F.R.I.B.A., Paddington Station, W.2.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Aldershot	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Alfreton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Alnwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashford (Kent)	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ashington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Aylsham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnstaple	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/8½	1/8½	1/8½	1/9½	1/8½	1/8½	1/8½	1/3½
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bognor Regis	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bradford-on-Avon	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Braintree	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Brentwood	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bridlington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bromsgrove	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bromyard	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Bungay	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Buxton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Carlisle	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chorley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cirencester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Clacton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cranbrook	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Deal	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Denbigh	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Devizes	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Dewsbury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dorchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	11½
Dorking	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Dovercourt	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Driffield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Droitwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ely	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Exeter	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Exmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Fakenham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Felixstowe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Frome	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	1/2½	11½
Glossop	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Gosport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harpenden	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hatfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hednesford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Herne Bay	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hunstanton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Huntingdon	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Isle of Wight	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
King's Lynn	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lancaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leighton Buzzard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Littlehampton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Liverpool	1/8½	1/8½	1/8½	1/9½	1/8½	1/8½	1/8½	1/3½
Llandudno	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London:								
12 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/2½
12-15 m. radius	1/8	1/8	1/8	1/8*	1/8	1/8	1/7	1/3
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lowestoft	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Luton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Macclesfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/3
Maidstone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Malvern	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Margate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Market Harb'rough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Matlock	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Melton Constable	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Melton Mowbray	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Merthyr Tydfil	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newark	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Newbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-ur-Lyme	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
New Forest	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/1½
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Nuneaton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Paignton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Pontypridd	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Portsmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ramsgate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Reading	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Redcar	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Redditch	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Reigate	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Retford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ripon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rugby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Saffron Walden	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sawbridgeworth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Saxmundham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Scarborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Sevenoaks	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Southampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southend-on-Sea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stevenage	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stowmarket	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Stratford-on-Avon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swaffham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1½
Tamworth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Thetford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Totnes	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1½
Trowbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsden	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warminster	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warwick	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wells (Norfolk)	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Weston-sup-Mare	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Weymouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Whitby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wisbech	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Woodbridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Worthing	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wrexham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wycombe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wymondham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
York	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 940.

LAW REPORTS

BIDEFORD COUNTY COURT.
(Before Judge W. B. Lindley.)

IMPROPER USE OF A PRODUCT.

THAT firms who give a warranty or guarantee of satisfaction with their products or goods are entitled to have them used or applied in the manner they themselves advise was the real point in an action which came before the County Court Judge at Bideford, last week, when Messrs. A. W. Manley Tucker, manufacturers and vendors of bituminous compounds, of Bideford sued Arthur Lewis, of Westward Ho, to recover £7 17s. 6d., the value of a quantity of liquid emulsion supplied to him. The defendant counterclaimed for £25 for alleged breach of warranty.

Evidence was given that plaintiffs supplied defendant with a quantity of the emulsion for the purpose of making a roof garden at defendant's café at Westward Ho. Mr. Manley Tucker, who said he was the main partner in the firm, contended that defendant's roof was unsatisfactory in consequence of the improper manner in which the emulsion had been used.

After a hearing which occupied several hours His Honour Judge W. B. Lindley found that a warranty was given, but that the cause of the roof not being a success was the improper and unskilful way in which the emulsion had been used. He therefore gave judgment for the plaintiffs.

COURT OF APPEAL (Lords Justices Scrutton, Greer, and Slesser).

QUESTION OF PENALTIES BETWEEN CONTRACTORS AND SUB-CONTRACTORS.

THIS case came before the Court on November 19 on the appeal of the defendants, Messrs. Holloway Brothers, of The Wharf, Grosvenor-road, Westminster, S.W., from the judgment of Mr. Justice Branson in the King's Bench Division in favour of the plaintiffs, Messrs. Archibald D. Dawnay and Sons, Ltd., of Steelworks-road, Battersea, on a preliminary issue in the action.

(The case was reported in *The Builder* of November 14.)

The action was brought by Messrs. A. Dawnay & Sons to recover a sum of £2,000 they alleged to be due from the defendants under a contract of August, 1928, for work and labour done.

The defendants were the main builders and contractors to build the Masonic Peace Memorial in Great Queen-street, and they employed the plaintiffs, Messrs. Dawnay and Sons, as sub-contractors for a great deal of the ironwork. There was a provision in the subcontract under which the plaintiffs were liable for certain liquidated damages for delay, and there was a corresponding penalty exacted under the head contract with the building owners. There was some delay on both sides, but the defendants under the head contract had not had to pay any damages, the architects having extended their time. The defendants, by their defence to the plaintiffs' action, admitted that the amount claimed was due, but said that as the plaintiffs had failed to carry out the contract in the stipulated time, the sum of £2,000 was due to them from the plaintiffs by way of liquidated damages, and for which they counterclaimed.

Mr. Justice Branson decided the point in favour of the plaintiffs, holding that the damages could only be recovered for the plaintiffs if the penalty was exacted under the agreement between the defendants and the building owners. As the penalty had not been exacted, the preliminary point, he said, must be decided in favour of the plaintiffs, Messrs. Dawnay and Sons. From this result Messrs. Holloway Brothers now appealed.

At the conclusion of the arguments the Lords Justices held that Mr. Justice Branson had come to a proper conclusion and dismissed the appeal.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders, and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations :—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

DECEMBER 1.

Acton, W.—Flats.—At Bollo-lane. Town Clerk. Municipal Offices. Dep. £2.

Carnforth.—Mortuary.—For U.D.C. F. Holt, S., 36, Lancaster-rd.

Chingford.—Fencing.—1,575 yds. of fencing, comprising oak posts, arris rails and spaced chestnut fencing, for U.D.C. S. J. Hellier, E. and S.

Croydon.—Building.—Administrative building in Cherry Orchard-rd., for Hall & Co., Ltd. Wallis, Gilbert & Partners, architects, 29, Roland-gardens, S.W.7.

Edinburgh.—Joinery.—In connection with alterations at 5, Calton-hill, for Gas Dept. H. H. Gracie, Engineer and Manager, Gas Department, 15, Calton-hill.

Glasgow.—Painting.—Painter work of Larkfield bus garage extension, for T.C. General Manager, 46, Bath-st.

Inchicore.—Shops.—For Directors of Great Southern Railways. Chief Engineer, Westland-row Station, Dublin, C.S. Dep. £5.

Keynsham.—Painting.—External to 24 houses at Keynsham, for R.D.C. H. W. Argile, Building Surveyor, 16, High-st.

Leyton. — Installation.—Electrical installation, comprising wiring, etc., at public wash-house, Cathall-rd., Leytonstone, E.11, for T.C. A. P. Howell, M.Inst.C.E., B.E. and S. Dep. £2.

***London, W.3.**—Conversion.—Of spray baths and reconstruction of slipper baths at the Public Baths, Salisbury-rd., for the Acton T.C. Town Clerk. Municipal Offices, Acton, W.3. Dep. £2 2s.

Lowestoft.—Houses.—108 non-parlour type on Kirkley Run North housing site, for T.C. S. W. Mobbs, A.R.I.B.A., B.S. Dep. £2 2s.

Mitcham.—Extension.—Of mortuary in Church-rd. burial ground, for U.D.C. S., Broadway House.

Newquay.—Pavilion.—For Newquay Bowling Club, at Trenance Pleasure Grounds. F. J. Martin, S., "Kin-Tea." Whitegate, Newquay.

Pembury.—Additions and Alterations.—For the Kent C.C. Clerk, Sessions House, Maidstone. Dep. £5 5s.

Waterford.—Repairs.—To tower and other works to St. John's Church. R. A. Cutlar, architect, 57, St. Declan's-place. Dep. £2 2s.

Wigan.—School.—Senior school for 320 boys and 320 girls, in Frog-lane, for Managers of All Saints' Church School. Grayson & Barnish, F.F.R.I.B.A., architects, 58, Rodney-st., Liverpool. Dep. £2 2s.

Willesden.—Decorating.—Decoration and other repairs to temporary building at Wesley-rd. Council school, and provision of a wooden platform at Kensal Rise Council school, for E.C. F. Wilkinson, E.

DECEMBER 2.

Ballymoney.—Hospital.—Erection of Robinson Cottage Hospital, for Committee. T. Houston, architect, Kingscourt, Wellington-pl., Belfast. Dep. £5 5s.

Barking.—Offices and Switch-house Buildings.—Supply and erection of, in connection with the extensions to the power house. Chairman, County of London Electric Supply Co., Ltd., County House, 46-47, New Broad-street, E.C.2. Dep. £5 5s.

Billericay.—Cottages.—12 at Foundry Field, Laindon-rd., for R.D.C. S. Dep. £1 1s.

Fareham.—Houses.—6 Swanwick-lane and 6 Church-rd., Locks Heath, Sarisbury, for R.D.C. L. W. Hunt, S., 97, West-st.

Glossop. — Extensions.—To Glossop Grammar school, for Derbyshire E.C. George H. Widdows, F.R.I.B.A., County Architect, County Offices, St. Mary's Gate, Derby. Dep. £1 1s.

Hollinwood, nr. Oldham.—New Roof.—Over canteen block, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Hewton Abbot.—Houses.—24 at Bovey Tracey, for R.D.C. B. H. Palmer, L.R.I.B.A., 11, Union-st.

Normanton.—Office.—Show-room and office in connection with electric-lighting undertaking, for U.D.C. W. F. Copp, S.

DECEMBER 3.

Auchindoir.—Additions.—Alterations and additions to manse of Auchindoir, Lumsden, Aberdeenshire, for trustees. T. Scott Sutherland & Taylor, chartered architects and surveyors, 9, The Square, Huntly.

Brighton.—Conveniences.—In the Wild-pk., Moulscombe, for C.B. B.E. and S. Dep. £2 2s.

Dewsbury.—Extension.—To Town Hall, for C.B. Borough Architect and Surveyor.

Kingston-upon-Hull.—Heating.—Low pressure hot water heating installation and domestic hot water supply apparatus for proposed Derringham Bank school, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

London, W.1. — Office. — Erection of, at Wales Farm-rd., for the Acton Town Council. Borough Engineer, Municipal Offices, W.3.

Sevenoaks.—Houses.—Pair at Fordcombe, Penshurst, for R.D.C. Building Surveyor. Dep. £2 2s.

Southend-on-Sea.—Bandstand.—At pier-head on upper deck, and incidental works in connection therewith, for C.B. R. H. Dyer, B.E. Dep. £1.

Wembley.—Steps.—Reconstruction in precast concrete on concrete foundation of flight public steps leading from Harrow-rd. to Station-grove, for U.D.C. C. R. W. Chapman, E. and S.

DECEMBER 4.

London.—Alterations.—Reconstruction and alterations to house at Council's depot, for St. Pancras B.C. B.E. and S. Dep. £1 1s.

Manchester. — Extensions. — Also alterations to Birley-st. Municipal school, Beswick, for E.C. F. E. Warbreck Howell, T.C. Dep. £2 2s.

Manchester.—Installation.—Electrical installation at Burnage high school for boys, for E.C. F. E. Warbreck Howell, T.C. Dep. £1 1s.

Manchester. — Alterations. — Also additions, to municipal special school and housewifery centre, Beech Mount, Harpurhey, for E.C. F. E. Warbreck Howell, T.C. Dep. £1 1s.

Norwich.—Heating.—Installing hot water heating apparatus and domestic hot water supply to two new pavilions in course of erection at Hellesdon Mental Hospital, for T.C. J. S. Bullough, City E.

DECEMBER 5.

Bognor Regis.—Building.—At Eastergate pumping station, comprising additions and alterations to engine-house, small reinforced-concrete tank, and machinery foundations, for U.D.C. J. Jubb, clerk. Dep. £2 2s.

***Bridport.**—20 houses.—Erection of 10 on the Corporation's estate at "The Skilling," and 10 on "The Court Orchard Estate." Also laying of sewers, etc., on the above mentioned estates. Borough Surveyor. Dep. £2 2s.

Co. Kilkenny. — School. — National school at Strangsmill, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1.

***Portsmouth.** — Electric Light Installation. — Adrien J. Sharp, Education Dept., The Guildhall. Dep. £1 1s.

DECEMBER 6.

Beckenham.—Lavatories.—Lavatory building and renovations to existing lavatories in Kelsey-park, for U.D.C. E. and S., 36, High-street. Dep. £2.

***Birmingham.**—Central Police Station and Offices. City Engineer and Surveyor, The Council House. Dep. £5 5s.

Charleville.—Housing.—35 houses, for Cork County Board of Public Health. Eugene Callanan, secretary, Cork. Dep. £1.

East Ashford.—Cottage.—On site of sewage disposal works, South Willesborough, for R.D.C. T. H. Wilde, S., 30, Albemarle-rd., Willesborough.

Eccles.—Dwellings.—Nine parlour type in Woodfield-grove and pair in Liverpool-rd., for T.C. B.E. and S. Dep. £1 1s.

Oban.—Houses.—3-story tenements comprising 2 and 3-roomed houses at Soldiers'-pk., Soroba-rd., for T.C. B.S.

DECEMBER 8.

Cardiff.—Superstructure.—Of an extension to the present County Hall, for the Glamorgan C.C. Clerk, County Hall.

Chertsey.—Houses.—Twelve three-bedroom cottages in blocks of four on site situate on new road off Chertsey-rd., Chobham, for R.D.C. F. J. Wareham, clerk.

Chichester.—House.—On Stockbridge housing estate, Chichester. J. Auty, A.R.I.B.A., architect, 44, South-st, Chichester.

Cornwall.—Repairs.—Of roofs of engine house at Lizard Lighthouse, Cornwall, for Corporation of Trinity House. M. K. Smith, Secretary, Trinity House, Tower Hill, London, E.C.3.

Culham.—Houses.—Two pairs, at Marsh Baldon, for R.D.C. A. B. West, F.R.I.B.A., The Knowl, Abingdon. Dep. £2 2s.

Dublin.—Houses.—14, Brookfield-rd., Kilmainham, Dublin, for Miss Julia Rose Kenny, 12, St. Edward's-ter., Garville-av., Rathgar. A. A. Murphy, architect, 16, Nassau-st., Dublin. Dep. £2 2s.

Ellesmere Port.—Offices.—Council offices in York-rd., for U.D.C. S. Dep. £5 5s.

Gt. Yarmouth.—Houses.—64 on North Denes estate, for C.B. B.E. Dep. £2 2s.

Lincoln.—Additions.—Additions and certain alterations to complete County Offices, for Lindsey C.C. H. G. Gamble, F.R.I.B.A., County Architect, Bank-st. cham., Lincoln. Dep. £5 5s.

London.—Wiring.—Wiring and fittings for electric lighting block of tenement dwellings, etc., at Ossulston estate, St. Pancras (Block 3, Levita House, first portion), for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

Manchester.—Offices.—Tuberculosis offices and dispensary at corner of Denmark-rd. and Oxford-rd., for T.C. City Architect. Dep. £1 1s.

Rowley Regis.—Alterations.—Also additions, etc., to O. H. Macefields senior boys' school, for U.D.C. Pritchard, Godwin & Clist, F. & A.R.I.B.A., chartered architects and surveyors, Bank-buildings, Kidderminster. Dep. £2 2s.

Tendring.—Cottages.—Four, Beaumont; four, Elmstead Market; six, Great Oakley; ten, St. Osyth, for R.D.C. F. G. Vincent-Brown, architect, Dovercourt Bay.

Woodhouse.—Extensions.—At Secondary School, for West Riding C.C. Education Officer, County Hall, Wakefield.

DECEMBER 9.

Acock's Green, Birmingham. — Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Ireland. — Building. — National School, Co. Donegal; and enlarging Letter National School, Co. Donegal, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1 each.

Liverpool.—Station.—Relief station, Norris Green, for T.C. Land Steward and Surveyor. Dep. £1 1s.

Nottingham. — Additions. — To Morley schools, Wells-rd., for E.C. T. Wallis Gordon, City E. & S. Dep. £1.

St. Austell.—Houses.—Roads and sewers and 44 houses on Polkyth site, for U.D.C. E. D. Groves, E. and S. Dep. £2 2s.

South Shields.—Bungalows.—30 small bungalows for aged persons, in 2 types, on Marsden housing site at Whitburn, for R.D.C. W. Welsh, surveyor and architect, Council Offices. Dep. £3 3s.

***Stanford-le-Hope.**—New Classrooms and Alterations.—For the Essex C.C. County Architect, Springfield Old Court, Chelmsford. Dep. £2 2s., payable to the County Accountant, Duke-st.

***Walthamstow.**—New Gymnasium.—Erection of, at the County High School for Girls, for Essex C.C. County Architect, Springfield Old Court, Chelmsford. Dep. £1 1s. to County Accountant, Duke-st.

DECEMBER 10.

Grimsby.—Market.—Cattle market off Cromwell-rd., for C.B. H. Gilbert Whyatt, B.E. and S. Dep. £3 3s.

Hambledon.—Houses.—Two at Bramley; twelve at Cranleigh, and seven at Witley, for R.D.C. P. G. Williams, S. Dep. £2 2s.

Ipswich.—Houses.—200 on London-rd. and Gainsborough-lane estates, for C.B. E. McLauchlan, Borough Surveyor and Water Engineer. Dep. £2 2s.

Mere.—Houses.—4 non-parlour type in White-rd., Mere, for R.D.C. W. J. M. Morrish, F.R.I.B.A., Gillingham, Dorset.

DECEMBER 11.

Manchester.—Fencing.—Wrought-iron fencing at Broadhurst-pk., Moston, for T.C. City E. Dep. £1 1s.

DECEMBER 12.

Devon.—School.—Council school at Bishopstawton, near Barnstaple, for C.C. County Architect's Office, 97, Heavitree-rd., Exeter.

Haslingden.—Additions.—Also structural alterations, at County police station, for Lancashire C.C. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston. Dep. £2.

***Luton.**—Elementary School.—Erection of for the Town Council. Educational Secretary, 3, Manchester-st. Dep. £2 (payable to the Education Secretary).

Sidmouth.—Houses.—20, on Manstone-lane housing site, for U.D.C. L. M. Blanchard, F.S.I., architect. Dep. £5.

Southampton.—Fencing.—678 yds. run of 5 ft. 6 in. wrought-iron fencing and 2 No. 9 ft. entrance gates, for C.B. B.E., 33-35, French-st. Dep. £1 1s.

DECEMBER 13.

Gloucester.—Extensions.—To the existing hospital. Secretary, Royal Infirmary. Dep. £5 5s.

DECEMBER 15.

***Birkenhead.**—Swimming Baths, etc.—For the Corporation. Town Clerk, Town Hall.

Ealing, W.5.—Additional Block.—Erection of at Grange school. Town Clerk, Town Hall. Dep. £2 2s.

Hill End, St. Albans.—Engine House, Water Tower, etc.—Erection of, in the grounds of the Mental Hospital. Clerk, Clerk of the Peace Office, Hertford. Dep. £5.

London.—Exchange.—Employment Exchange at Woolwich, for H.M.O.W. Contracts Branch, Office of Works, King Charles-st., S.W.1. Dep. £1 1s.

***Reigate.**—Houses.—Erection of, in Lyndhurst-rd., South Park, for the Town Council. Town Clerk, Municipal Buildings. Dep. £2 2s.

DECEMBER 16.

***Birmingham.**—Postmen's Office.—For H.M.O.W., Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Leeds.—School.—Infants' and junior schools in Potternewton-lane, for E.C. Education Department (Architect's Section), Calverley-st. Dep. £1 1s.

***Southborough.**—Houses.—Erection of, on the Corporation's housing estate. Town Clerk, Municipal Offices, Bromley, Kent. Dep. £2 2s.

***Stanmore.**—Post Office and Sorting Office.—For H.M.O.W., Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

DECEMBER 17.

***Brecon.**—Alterations and Additions—To the "Mansion House," to form a new post office and telephone exchange, for H.M.O.W., Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

DECEMBER 18.

***Andover.**—Additional Classrooms and Offices.—At (Dene-rd.) junior Council school. Clerk, The Castle, Winchester. Dep. £1 1s. payable to the Hampshire C.C.

Barking.—Steel Frame Building.—Supply and erection of, in connection with extensions to the power station. Chairman, County of London Electric Supply Co., Ltd., County House, 46-47, New Broad-street, E.C.2. Dep. £5 5s.

DECEMBER 22.

Hastings.—Houses.—110 on Hollington site No. 2, for C.B. B.E., 37, Wellington-sq. Dep. £2 2s.

***Liverpool.**—Houses.—On the Dovecot estate, for the Corporation. Town Clerk, Municipal-buildings. Dep. £1 1s.

JANUARY 5.

Hastings.—Extensions.—Of Johns-place, Cambridge-rd., for E.C. B.E., 37, Wellington-sq. Dep. £2 2s.

Hastings. — Extension. — To Hollington Council school, Battle-rd., for E.C. B.E., 37, Wellington sq. Dep. £2 2s.

JANUARY 14.

***Chichester.**—Nurses' Homes and Admission Hospital.—Erection of at the Graylingwell Mental Hospital. Clerk, 9, West Pallant. Dep. £5 5s.

NO DATE.

Birmingham.—Fencing.—Supplying and fixing 1,200 lin. yds. oak fencing and gates, for Public Works, &c., Committee. H. H. Humphries, City E. and S.

Nottingham.—House.—Men's lodging house, in Colwick-st., for T.C. Housing Architect, 58-59, Long Row West. Dep. £2 2s.

Plymouth.—Additions.—Also alterations and new front to premises, Westwell-st. Carder & Carder, architect, civil engineers and surveyors, 3, Buckland-ter.

MATERIALS, etc.

DECEMBER 1.

Helsworthy.—Road Materials.—For R.D.C. H. E. Cackett, S.

Kingston-upon-Hull.—Paints, etc.—For Cleaning Dept. T. Douglas, Director of Public Cleaning.

Newton Abbot.—Road Materials.—For R.D.C. S. Oliver, S., Kylemore, 38, Keyberry-pk.

St. Thomas.—Road Materials.—For R.D.C. J. S. Madge, S., Brooklands, Heavitree, Exeter.

DECEMBER 2.

Middlesbrough.—Cement, etc.—For Tees Conservancy Commissioners.

DECEMBER 3.

Leicester.—Highway Materials.—For T.C. City S.

DECEMBER 9.

St. Helens (I.W.).—Pipes.—6,100 yds. cast-iron pipes, for U.D.C. C. Pursey, S.

DECEMBER 10.

Belfast.—Paints, etc.—Belfast Harbour Commissioners. M. J. Watkins, general manager and secretary, Harbour Office.

DECEMBER 12.

Norfolk.—Broken Granite, etc.—For C.C. S. H Warren, C.S., 9, Queen-st., Norwich.

DECEMBER 13.

Breconshire.—Road Materials.—For C.C. J. M. Richards, C.S., Brecon.

DECEMBER 16.

Dover.—Granite Chippings.—For T.C. W. Boulton Smith, B.E.

Dover.—Tar.—20,000 gallons, for T.C. W. Boulton Smith, B.E.

Rangoon.—Portland Cement.—3,000 casks, for India Store Dept. Director-General, Belvedere-rd., S.E.1.

DECEMBER 20.

East Suffolk.—Road Materials.—For C.C. W. Jervis, C.S., Ipswich.

ENGINEERING, IRON AND STEEL.

DECEMBER 1.

Liss.—Reconstruction.—Of Princes-bridge, for Southampton C.C. W. J. Taylor, C.S., The Castle, Winchester. Dep. £1 1s.

Oldham.—Culvert.—140 lin. yds. of 36-in. dia. reinforced concrete pipe culvert and incidental works at Chadderton Cemetery, for C.B. B.E. and S. Dep. £1 1s.

Ringwood.—Widening.—Of Bisterne bridge, near Ringwood, for Southampton C.C. W. J. Taylor, C.S., The Castle, Winchester. Dep. £1 1s.

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Westmeath.—Water Supply.—Slow sand filter beds, cast-iron water mains, with valves and fittings, the provision of electric motors and pumps and other works in connection with water supply of Mullingar, for County Board of Health and Public Assistance. P. H. McCarthy, M.A., B.A.I., M.I.C.E.I., consulting engineer, 26, Lower Leeson-st., Dublin. Dep. £10.

DECEMBER 2.

Bridgwater.—Widening.—In reinforced concrete and contingent works of Victoria-rd. bridge, which spans Bridgwater-Taunton canal, for T.C. R. A. Watson, B.E. Dep. £2 2s.

Rhyl.—Sewerage.—Providing and laying about 5 miles of 30-in., 21-in., 14-in. and 8-in. dia. cast-iron pipe sewers and rising mains and construction of manholes, reinforced concrete pump sump, pump well, pumping station, and for the incidental works, for U.D.C. R. Green, E., 37, Bennetts-hill, Birmingham. Dep. £3 3s.

DECEMBER 3.

Pontardawe.—Wall.—Concrete defence wall alongside River Tawe at Pontardawe and Clydach sewage outfall works and alongside rivers Twrch and Tawe at Glanyrafon-rd., Ystalyfera, for R.D.C. B. Islwyn Phillips. Dep. £2.

DECEMBER 5.

Truro.—Drainage.—Three-quarters of mile of sewer, mainly 7-in. with sewage treatment works and filter at Mount Hawke, parish of St. Agnes, for R.D.C. R. Hansford Worth, E., 42, George-st., Plymouth. Dep. £2 2s.

DECEMBER 6.

Beverley.—Sewers.—Providing and laying of about 9,210 lin. yds. of 6-in., 7-in., 8-in., 9-in., 10-in. and 12-in. pipe sewers, with necessary manholes, storm overflows, etc., construction of a reinforced concrete storage tank of 42,000 gallons capacity, with inlet and screen chambers in brick, and laying of 9-in. cast-iron storm overflow and outfall pipes into River Humber, for R.D.C. Fairbank & Son, engineers, Tudor House, Stonegate, York. Dep. £2 2s.

DECEMBER 8.

Chester.—Extension.—To sewage disposal works, for T.C. C. Greenwood, City E. and S. Dep. £2 2s.

Maldons and Coombe.—Extensions.—Sewage works extension, for U.D.C. R. H. Jeffes, E. and S. Dep. £5.

Totnes.—Shaft.—Timbered shaft in gravels adjacent to Rivert Dart, on Hampstead Farm, and for test pumping, for T.C. J. W. Smith, Borough E. and S., 10, High-st. Dep. £2 2s.

DECEMBER 9.

Birmingham.—Widening.—In mass concrete, brickwork and steelwork of following bridges: bridge over L.M. and S. Rly., Alum Rock-rd, and bridge over L.M. and S. Rly., Belcher-lane, for T.C. H. H. Humphries, City E. and S. Dep. £2 each

Hambledon.—Drainage.—9,800 lin. yds. of stoneware and cast-iron pipe sewers varying from 9-in. to 6-in. in diameter, also manholes, etc., and construction of settling tank, etc., for R.D.C. G. Swayne, 1, Victoria-st., Westminster, S.W.1. Dep. £3 3s.

DECEMBER 10.

Birmingham.—Sewerage.—7,630 yds. of brick and concrete stoneware pipe, concrete tube and cast-iron pipe sewers and drains in roads, park and private lands from Church-rd. to Queslett-rd.; also special brick-lined steel tube sewer crossing under the Tame Valley Canal, for T.C. H. H. Humphries, M.Inst.C.E., City E. and S. Dep. £2.

DECEMBER 11.

Bognor Regis.—Reservoir.—Service reservoir in Slindon, for U.D.C. T. & C. Hawksley, civil engineers, 34, Old Queen-st., Westminster, S.W.1. Dep. £2 2s.

DECEMBER 15.

Dunglass.—Diversion.—Of main Edinburgh-Berwick-rd. (A.1), about 1¼ miles long, near Cockburnspath, and reinforced concrete bridge over Dunglass Gorge, for East Lothian C.C. Blyth & Blyth, civil engineers, 135, George-st., Edinburgh. Dep. £10.

DECEMBER 16.

Liverpool.—Pipes.—Laying of steel pipes of 42-in. internal dia. and other ancillary works, from Wernddu to Afon Rhaiadr and from Parc Uchaf to Lloran Ganol, a distance of about 5¼ miles, for Liverpool Water Works, Vyrnwy Aqueduct, for Corporation. Water Engineer, 55, Dale-st., Liverpool. Dep. £5 5s.

DECEMBER 17.

Northampton. — Sewage Disposal. — Automatic pumping station at Bedford-rd., Northampton, with storm water sump for installation of No. 2—10-in. and No. 2—12-in. centrifugal pumps; 3¼ miles of 5-ft. diameter main outfall conduit (concrete tube), 700 yds. of 3-ft. 9-in. diameter storm water conduit with storm water weirs, etc.; detritus tanks, screening chamber, Dortmund tanks, humus tanks, and main effluent carriers, etc., at Great Billing, near Northampton; 950 lin. yds. of cast-iron pipe sewers varying in size from 30-in. to 42-in. diameter; 2,880 lin. yds. of concrete tube sewers varying in size from 18-in. to 42-in. diameter; automatic pumping station, including pumping machinery and equipment, rising mains, sewage tank, etc., at St. James; 2,046 lin. yds. of cast-iron pipe sewers varying in size from 21-in. to 33-in., at Far Cotton, for C.B. A. Fidler, B.E. Dep. £5 5s. each.

DECEMBER 31.

Newquay.—Wall.—20 lin. yds. of sea wall, 23 ft. high, together with retaining and face walls, approximately 50 ft. in height, with all excavation, filling and other works incidental thereto, at Towan

Beach, adjoining South Quay-hill, for U.D.C. C. W. Walters, E. and S. Dep. £5.

JANUARY 1.

Egypt.—Installation.—Of water works at Achmoun, for Egyptian Ministry of Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X.10,318.)

NO DATE.

Greece.—Bridge.—Movable road bridge on Isthmus of Corinth, for L'Organisme Autonome des Sinistrés de Corinthe. Department of Overseas Trade, 35, Old Queen-st., S.W.1 (Ref. A.X. 10,485).

Mersemma and Heysham.—Steelwork.—Steel frame structure, for T.C. P. W. Ladmore, B.E. and S. Dep. £2 2s.

ROAD, SEWERAGE, AND WATER WORKS.

DECEMBER 1.

Aberdeen.—Sewers.—Fireclay pipe sewers at Cairnaquheen, Mid Stocket-rd., for T.C. T. F. Henderson, City E. Dep. £1 1s.

Broadstairs and St. Peter's.—Paving.—Limestone tar paving on footways in Broadstairs-rd., Broadstairs, approximate area 5,200 sq. yds., for U.D.C. H. Hurd, S.

Buckfastleigh.—Widening.—Portion of Grange-rd., for U.D.C. S.

Buckley.—Sewerage.—Laying and jointing of about three miles of stoneware pipe sewers, with manholes and other appurtenant works, for U.D.C. R. Lloyd Roberts, E., Earl-rd., Mold. Dep. £3 3s.

Hitchin.—Widening.—Road widening and other road works, extension of recreation grounds, and sewer and water main extensions, for U.D.C. A. P. Ruscoe, Clerk. Dep. £2 2s.

Slough.—Extension.—175 yds., approximately, of 15-in. diameter cast-iron pumping main, with valves and incidental works, for U.D.C. A. Bromiy, E.

Sunbury-on-Thames.—Making-up.—Also surface water draining of station approach, Shepperton, 267 ft. in length, for U.D.C. H. F. Coales, S. and E. Dep. £2 2s.

DECEMBER 2.

Doncaster.—Sewers.—440 lin. yds. of 18-in. and 640 lin. yds. of 15-in. circular sewers in connection with sewerage and sewage disposal scheme, contract No. 15, Wheatley Hills (South), for Corporation. F. O. Kirby, B.E. Dep. £2 2s.

Dover.—Extension.—40ft. rd., including excavation, bituminous dressed granite, surfacing on hardcore foundation, kerbing, channelling, paving, surface water drainage and mass concrete retaining wall in Noah's Ark-rd., for T.C. Wm. Boulton Smith, B.E. Dep. £2 2s.

Edinburgh.—Surfacing.—Surface covering and layout of playground demonstration school, for National Committee for the Training of Teachers, Edinburgh Provincial Committee. F. Wood, architect, 73, George-st.

Kingston-upon-Thames. — Making-up. — Of Studland-rd. and St. Albans-rd (part of), for T.C. T. Graves, B.S. Dep. £2 2s.

Lichfield.—Streets.—On Dovehouse Fields housing site, for T.C. N. Anty, City S. Dep. £1 1s.

London.—Surfacing.—Deal paving blocks and surfacing with hand-laid hard granited mastic asphalt the carriageway of Popham-rd., for Islington B.C. B.E.

DECEMBER 3.

Glamorgan.—Roads.—Aberdare-Hirwain-Glynneath County road; improvement at cross roads, Hirwain, for C.C. W. Gough Jenkins, Deputy-Clerk, Glamorgan County-hall, Cardiff.

Wembley. — Extension. — Of burial ground at Alperton, comprising construction of hoggin and hardcore roads, surface water and land drainage, provision and erection of W.I. fencing, etc., for U.D.C. C. R. W. Chapman, E. and S. Dep. £1 1s.

Wembley.—Sewer.—316 yds. of 9-in. diameter glazed stoneware pipe soil sewer, together with necessary manholes and appurtenant works, at Vale Farm estate, for U.D.C. C. R. W. Chapman, E. and S. Dep. £1 1s.

DECEMBER 4.

Bromley.—Extensions.—240 yds. 9-in. stoneware sewer, with 3 manholes, in George-lane, Hayes; 300 yds. 9-in. stoneware sewer, with 7 manholes, in Salt Box-hill, Cudham, and other incidental works, for R.D.C. A. W. P. Willis, E. and S. Dep. £2 2s.

Leeds.—Paving.—Kerbing, tar paving and flagging footpaths and macadamising carriageways in Aviary-view, Aviary-row, Bickerdyke-rd., Ainsty-ter., Sandon-place, Woodhouse Hill-grove, Roxholme-place, Wensley-drive, for T.C. E. W. Cockerlyne, Highways Engineer, 156, Kirkstall-rd. Dep. £1 1s.

Southend-on-Sea.—Making-up.—Of Hall Park-av. and Lonsdale-rd., sec. 3, and for surface water sewering, Sutherland-boulevard and Agnes-av., and incidental works in connection thereto, for C.B. R. H. Dyer, B.E. and S. Dep. £1 each.

DECEMBER 5.

Bridport.—Road.—Construction of new road, 173 ft. long, and for new concrete road 420 ft. long, with footpaths and drains, on two housing sites, for T.C. Robt. N. Armstrong, B.S.

Burnham-on-Sea. — Improvements. — Kerbing and paving of footpaths in certain streets, for U.D.C. Wm. H. Chowins, E. and S. Dep. £2 2s.

London, N.—Sewering.—Levelling, paving, etc., of Lanchaster-rd., for the Hornsey B.C. Town Clerk, Town Hall, Highgate, N.6.

Heath.—Widening.—Also improvement of London-rd. at Victoria-gardens, for T.C. H. Alex. Clarke, B.E. Dep. £2 2s.

DECEMBER 8.

Sanderstead Hill.—Making-up.—Of Scotland-rd., for U.D.C. T. J. Tee, clerk.

Dublin. — Road. — Laying reinforced roadway, Brookfield-rd., Kilmainham, Dublin, for Miss Julia Rose, Kenny, 12, St. Edward's-ter., Garville-av., Rathgar, Dublin. A. A. Murphy, M.R.I.A.I., architect, 16, Nassau-st., Dublin. Dep. £2 2s.

Hendon.—Sewer.—2,900 yds. of 36-in., 33-in., 30-in., 21-in. and 15-in. pipe sewers, with manholes and other works in connection therewith, in Silk Valley low level, for U.D.C. A. O. Knight, E. Dep. £5 5s.

Kingsbury.—Sewer.—Making-up Holmstall-av., approximate length 462 yds.; Limesdale-gardens, approximate length 444 yds.; Redhill-drive, approximate length 468 yds.; Meadowbank-rd. approximate length 392 yds.; Birchwood-court, approximate length 169 yds.; Oakleigh-court, approximate length 153 yds.; and laying of approximately 333 yds. lin. of 9-in. soil sewer in land running parallel to the Edgware-road from Wakemans Hill-av. to Hayline, The Hyde, for U.D.C. R. C. N. Newport, E. and S. Dep. £2 2s.

Romford.—Extension.—575 yds. of 9-in. stoneware pipe soil sewer with manholes, ventilator, etc., across private land near Front-lane, Cranham, for R.D.C. S., 16a, South-st.

DECEMBER 9.

Frinton-on-Sea.—Sewer.—700 yds. of 15-in. dia. cast-iron sewer, for U.D.C. P. O. Macdonald, clerk.

Staffordshire.—Reconstruction.—Of Wolverhampton-Stourbridge-road, from "Holly Bush" P.H. to Brettell-lane and Wollaston-rd., for C.C. R. S. Murt, C.S., Lloyds Bank-chambers, Stafford. Dep. £5.

Watford.—Sewer.—Laying sewer and surface water drain along Elm-av., about 320 yds. lin. of 9-in. pipes, together with manholes and other necessary works, for R.D.C. S., 25, King-st. Dep. £2 2s.

DECEMBER 10.

Bedford.—Making-up.—Of Cutcliffe-grove, Cutcliffe-place and West-grove, for T.C. N. Greenshields, B.E. and S. Dep. £2 2s.

Bedford.—Sewer.—600 lin. yds. of 12-in. foul sewer and works connected therewith in Newnham-lane, Goldington, for T.C. N. Greenshields, B.E. and S. Dep. £2 2s.

Repton.—Water Supply.—Provision, laying and jointing of about 1,500 yds. of 4-in. and 3-in. cast-iron water mains and other incidental works in connection with Halton water supply, for R.D.C. Wilcox & Raikes, engineers, 33, Great Charles-st., Birmingham. Dep. £2 2s.

DECEMBER 11.

Enfield.—Making-up.—Of Heene-rd. and Maxim-rd., for U.D.C. H. R. Crabb, E. and S. Dep. £2 2s.

DECEMBER 12.

Sidmouth.—Sewers.—Roads and sewers and incidental works in connection with Manstone-lane housing scheme, for U.D.C. L. M. Blanchard, S. Dep. £5.

DECEMBER 13.

Breconshire.—Surfacing.—Surface dressing work on certain sections of county rds., for C.C. J. M. Richards, C.S., Brecon. Dep. £2 2s.

Ilford.—Making-up.—Also paving Albermarle-gardens, for T.C. B.E. and S. Dep. £2 2s.

DECEMBER 16.

Caithness.—Reconstruction.—Earthworks, bridges, bottoming, surfacing, drainage and fencing, from Scrabster to Wick, about 22 miles, for C.C. County Road Surveyor, Wick, Caithness. Dep. £3 3s.

Stockport.—Pipes.—2,500 tons of cast-iron pipes and special castings, chiefly 30-in. dia., for T.C. G. H. Hill & Sons (Manchester), civil engineers, 40, Kennedy-st., Manchester. Dep. £1 1s.

DECEMBER 17.

Herne Bay.—Widening.—Widening and improving Hampton Pier-av., Herne Bay, a length of approximately 1,000 yds., for U.D.C. B. J. Wormleighton, E. and S.

DECEMBER 20.

West Sussex.—Reconstruction.—Of section of London-Worthing-rd. between Findon and Worthing, for C.C. H. W. Bowen, C.S., Southgate House, Chichester. Dep. £2.

Public Appointments

DECEMBER 1.

Chesterfield.—Clerk of Works required by R.D.C. Clerk, Public Assistance Offices.

Ruthin.—Clerk of Works required by Denbigh C.C. Clerk, County Offices.

DECEMBER 3.

Durham.—Architectural Assistant required by C.C. F. Willey, 34, Old Elvet.

DECEMBER 5.

***Barrow-in-Furness.** — Architectural Assistant. Borough Engineer, Town Hall.

DECEMBER 6.

***Gloucester.**—Architectural Assistant. County Education Architect, Shire Hall.

DECEMBER 8.

***Portsmouth.** — Two Assistants (temporary). Ardien J. Sharp, Education Offices, Guildhall.

DECEMBER 10.

***Maidstone.**—Architectural Assistants, required by the Kent C.C. W. H. Robinson, Springfield, Maidstone.

DECEMBER 13.

Clitheroe.—Architectural Assistant (temporary). Assistant Borough Surveyor required by the Borough Council. Borough Engineer, Town Hall.

***Winchester.**—Quantity Surveyor.—County Architect, The Castle.

PROPOSED NEW BUILDINGS AND OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

Abergele.—U.D.C. proposing to acquire land on which to erect 50 houses.

Altrincham.—U.D.C. propose widening and improving canal bridge, Manchester-rd. Cost £22,000.

Audenshaw.—U.D.C. appointed C. S. Allott & Son, civil engineers, North-parade, Parsonage, Manchester, as engineers for reconstruction of canal bridge in Ashton Hill-lane. L. & N.E.R. Co. been asked to make necessary grant of land, etc.

Baildon.—Rev. Charles McGarvey, St. Walburga's, Shipley, acquired site at Baildon to erect Catholic church. Plans by C. Simpson, architect, Cunliffe-ter., Cunliffe-rd., Bradford.

Barking Town.—U.L.C. had sketch plan prepared for proposed extensions to Council offices.—In connection with new clinic in Town Yard, application to be made to M.H. for loan of £5,340.—For reconstruction of Upney-lane bridge, Council recommend £7,871 and Gale-st. bridge £4,737.—Plans passed:—Engine house, river-rd., Acme Flooring and Paving Co., Ltd.; factory, River-rd., H. P. Orrock & Co.; 140 houses, Alfred's-way, Suburban Developments (London), Ltd.

Barnes.—U.D.C. approved: Bathroom, etc., 145, Castelnau, Romaine, Walker & Jenikns; extension of Sheen Hall, Upper Richmond-rd., adjoining Gordon-av., W. & P. J. Young; three garages, Thorne-passage, F. B. Kilmer & Sons; ten garages, rear 4 and 6, Priests-bridge, F. Mousley.

Beddington.—Clerk to Wandle Valley Joint Hospital Board to apply to M.H. for sanction to borrowing for erecting two additional 30-bed pavilions and converting an existing isolation pavilion into staff quarters.

Berkshire.—C.C. recommend: Stanford Bridges, approval to the reconstruction of these bridges at £1,700.—County Council approved acceptance by Hampshire C.C. of tender of £1,999 for reconstruction of Yateley bridge.

Bexley. — U.D.C. approved:—Club premises, Bank's-lane, Bexley Heath, Bexley Heath branch of British Legion; four houses, 32, 34, 36 and 38, Broomfield-rd., James & Norman; four houses, Bethel-rd., Welling, C. H. Evans; lay-out, junction of Long-lane and Pickford-lane, D. C. Bowyer; 36 bungalows, Pickford-lane, Long-lane and New-rd., off Long-lane, D. C. Bowyer; lay-out and four houses, Church-rd., Bexley Heath, E. A. Davey; new road and 16 houses off Honiton-rd., Welling, W. Norman; four houses, Queen's-rd., Welling, Peck & Flowers; 10 shops with living accommodation, Upper Wickham-lane, Welling, for Mrs. Lewis.

Bicester.—Clerk of R.D.C. instructed to obtain loan of £5,375 for Islip housing scheme.

Birmingham.—It is understood site for municipal aerodrome which City Council have undertaken to provide is in neighbourhood of Shirley. Cost about £70,000.

Bishops Stortford.—U.D.C. approved: Six shops and offices at Northgate End, A. Clark.

Blaydon.—U.D.C. received sanction from M.H. to erect further 80 houses on the Shildon Farm estate.—U.D.C. has approved church hall for St. John's Church, Chopwell.

Bradford.—Corporation proposing adaptation of buildings in Piccadilly for social centre and club for blind persons. W. Williamson, F.R.I.B.A., City Architect.

Brentford.—Middlesex E.C. approved scheme for Council infants' school in Boston-rd.

Bridgend.—Glamorgan C.C. E.C. to commence new secondary school. B. of E. sanction obtained.

Brighouse. — J. Blakeborough & Sons, Ltd., engineers, Woodhouse Works, proposes workshop and extensions to offices. Plans by A. Turner & Son, architects, 11, Clegg-st., Oldham.

Brighton.—M.H. forwarded sanctions to borrowing £11,895 for dwellings for persons of working-classes at Rottingdean.—Ministry also forwarded sanction to £90,000 for purchase of properties for street improvements.

Bucks.—Joint scheme with Oxfordshire C.C. and County Boroughs of Reading and Oxford for colony for mental defectives at Wyfold Court in South Oxfordshire, estimated to cost £36,000, agreed upon by the C.C.—Council Finance Committee recommended purchase of site of Walton House, Aylesbury, with lodge, outbuildings, garden and allotment fields, for Council junior and infants' school, at £3,300; that subject to the approval of B. of E., Council sanction £8,817 for proposed new Council junior school at Farnham; £4,046 upon

* See also List of Contracts, Competitions, etc.

extension of Tonman Mosley Council school, Slough; purchase of site containing about four acres on Baylis Court estate, Slough, for £1,600.

Cannock.—E.C. approved revised plans for extensions to Belt-rd. schools. Cost £10,000. Plans by S. Harrison, architect to E.C., Council House, The Green.—New schools proposed at Chadsmoor and at Hednesford, for which sites are being considered.

Carshalton.—U.D.C. considering lay-out of Avenue-rd. improvement, to include re-housing. S. to prepare revised lay-out.

Chadderton.—District Councils of Royton, Crompton and Failsworth and Chadderton proposing establishment of joint maternity home on land adjoining Burnley-lane.

Chertsey.—R.D.C. received M.H. approval to purchase housing site off Chertsey-rd. for £300.—Fresh tenders for 12 houses to be invited.

Chesterton.—R.D.C. approved purchase of sites at Teversham and Cottenham for housing purposes. Plans passed: Extension at The Factory, Histon, for Chivers & Sons; 4 garages, Trumpington-rd., Great Shelford, for Twinn Bros.

Chippenham.—R.D.C. intimated to Corsham P.C. that they will build a further 20 houses in Corsham, and that they have provisionally accepted site. Corsham Council to ask for more—six at Gastard and six at Neston.

Coalville.—U.D.C. approved: extensions to offices, Highfields, Coalville, Clutsom & Kemp, Ltd.

Cockermouth.—Cumberland and Westmoreland County Councils, in conjunction with Carlisle T.C., building mental defective colony on the Dovenby Hall estate, near Cockermouth. J. H. Morton & Sons, architects, South Shields; consulting engineer for steam boiler plant, heating and hot water supply services, etc., E. Griffiths, The Temple, Dale-st., Liverpool.

Coulsdon and Purley.—U.D.C. to erect a wall and fence, Old Rectory, Sanderstead, at £320.—Council to negotiate for land on Gidd Hill estate for housing.—Plans approved: E. O'Sullivan, Ltd., pair semi-detached houses, detached house and garage, Mossles-rd., Whyteleafe; Chester & Hopkins, 2 pairs semi-detached houses, Marlpit-lane, Coulsdon; S. H. Palmer, 3 pairs semi-detached houses and 4 garages, Upper Selsdon-rd., Sanderstead; James Smith & Sons (Norwood), Ltd., ice rink, shops and flats, engine house and car park, Brighton-rd., Purley.

Croydon.—C.B. received M.H. sanction to borrowing: £34,570 for 96 houses, Mitcham-rd. estate; £1,425, concreting wall, Pawson's-rd. site, Queen's-rd. cemetery; £84,821, reconstruction of various roads; £1,675, Mental Hospital sewerage; £28,250, 74 houses, Mitcham-rd. estate.—Council to carry out works at 37 and 39, Denmark-rd. and tenders to be invited.—Western section of Ham Farm allotments to be allotted for housing purposes.—£745 to be spent on extensions to transformer cubicles.—Additional work is to be carried out at steward's store, Mayday-rd. Hospital. Tenders will be invited. Plans passed: Taylor Bros., Ballards-way, 6 garages, 8 w.c. and tool houses, Ballards-way; County of London Electric Supply, Ltd., 47, New Broad-st., E.C.2, transformer and switch house, Gravel-hill, Addington; Burcote, Ltd., Lower Addiscombe-rd., 4 houses, Devonshire-way; C. A. Aish, 22, Bedford-st., W.C.2, alterations, Croydon Empire, North End; Bowyer & Son, 74, Barry-rd., S.E.22, alterations, "The Duke of Gloucester" P.H., Sydenham-rd., N.; Accounting & Tabulating Corporation of Great Britain, Ltd., Aurelia-rd., additions, Aurelia-rd.; A. Wilde, 66, The Avenue, Beckenham, 10 houses and garages, Orleans-rd.; P. Richardson, 62, High-st., workshop, between 27 and 29, Union-rd.; H. F. Gossling, 29, Harewood-rd., alterations and additions, 31-32, Canning-rd.; F. Windsor, 134, George-st., store, Brighton-rd., rear Queen's Hall; Central Electricity Board, 1, Charing Cross, W.C.2, transformer station, off Factory-lane; Corrall & Co., Ltd., 69, High-st., S.E.25, alterations and additions, 69, High-st., S.E.25; D. Morris & Sons, 14, Regent-st., S.W.1, alterations and additions, 63-65, South-end; S. H. Laver, London-rd., S.W.16, 7 houses, Norbury-rd.; Chart, Son & Reading, Katherine-st., 15 shops with rooms over and 15 garages, Wickham-rd.; A. Duckit, 2, Fairlands-av., 3 houses and 1 garage, Fairlands-av.; W. J. Clayton, estate agent, Southern Railway, London Bridge Station, S.E., lock-up shop, Woodside Station; E. Bates, 27, Queen Victoria-st., E.C.4, showrooms with rooms over and workshop, 380-2, London-rd.

Dartford.—L.C.C. recommend £33,495 in respect of provision of additional exits, fire protective work and other fire precautionary measures, and an electric light installation at Orchard hospital; and £33,874 for fire protective works, external staircases, and other fire precautionary measures, at Southern hospital.

Derby.—E.C. asking T.C. to approve site of 20 acres in Markeaton pk., for erection of secondary school at Normanton and senior school for Nottingham-rd.

Doncaster.—T.C. approved: 4 houses, Roberts-rd., H. Walker; alterations and additions, Hyde-park schools, for E.C.; 6 houses, Roberts-rd., W. Dodd.

Dover.—E.C. recommend 5 new schools.

Dublin.—Plans approved by City Architect: 122, Upper Dorset-st., rebuilding, W. W. Kennedy & Co.; North Brunswick-st., conversion of convent premises into students' quarter, Richmond Hospital; Castlewood-lane, Rathmines, sub-station, Electricity Supply Board.

Durham.—C.C. proposal to erect two new bridges over the River Tees in Barnard Castle area, at cost of £31,000 approved.—Council also sanctioned proposals of E.C. to erect mining centres at West Stanley, Horden, and Bishop Auckland, at £28,250, and similar centres at Durham, Houghton-le-Spring, and Blaydon, at £54,000.

Ealing.—Borough Electrical Engineer instructed to submit plans to Electricity Supply Committee for electricity showrooms, offices, at "Copley Dene," and invite tenders for electricity sub-station in the grounds of "Copley Dene."

Edmonton.—U.D.C. approved: Swannell & Sty, rebuilding "Beehive" public-house, Little Bury-st.; H. Chetwood, extensions to Dusmo's factory, Angel-rd.

Edwinstowe.—B.E. approved plans for extensions to Council school. Cost £8,500.

Felling.—U.D.C. to construct swimming bath at senior school on Burnville.

Fleetwood.—Plans under discussion for extension of port facilities at Fleetwood, involving £500,000, by L.M. and S.R. Co.

Friern Barnet.—U.D.C. approved: Rebuilding of "York Arms" public-house, Mann, Crossman & Paulin, Ltd.

Friern Barnet.—U.D.C. recommend about £600 for various fencing work.

Glasgow.—Reconstruction scheme being carried out in Sun Insurance offices, for warehouseman. Architects and contractors, McEwan & Co., North Woodside-rd.—Plans for church under preparation. Architect, J. T. Taylor, 212, Bath-st.—Corporation to build school at Scotstoun. Plans by W. Baillie, 2, West Regent-st.—Renovation scheme to be executed on Hugh Cheese Market, Glasgow, and whole building to be repainted. Schedules being prepared by J. Henderson, treasurer, 199, Bath-st.

Gosforth.—U.D.C. received M.H. sanction borrowing of £37,872 for 100 houses on Kenton-rd. site, and £2,978 for purchase of land at Kenton-rd. North.

Haddenham.—Disposal of sewage matter at Haddenham been subject to M.H. inquiry.—Application by Aylesbury R.D.C. for £27,958.

Hinckley.—R.D.C. to purchase land on Gravel Pit farm at Barwell, as site for further working-class dwellings.—Council also negotiating for purchase of land at Earl Shilton.—M.H. sanctioned proposal to erect 118 more houses of non-parlour type, and these will be allocated as follows: Burbage 30 houses, Sharnford 6, Sapcote 12, Stoke Golding 8, Earl Shilton 50, Stoney Stanton 12.

Hornchurch.—U.D.C. approved: 20 houses, Bruce-av., J. Smith; 6 houses, The Avenue, F. McCrystal & J. Cumbers; 4 houses, Great Gardens-rd., J. F. Lucas; 8 houses, Link-way, Smith & Bell; 11 houses, Cranham-rd., S. Wells; 20 houses, The Avenue, Newman Eyres; 12 houses, Windsor-rd., T. A. Clark; 6 houses, Glebe-way, S. A. Bishop; 54 houses, Northumberland-av., Maylands Estate (Harold Wood, Ltd.); 6 houses, Bruce-av., C. Pope; 6 houses, Grey Towers-av., F. G. Legg; 8 houses, Brentwood-rd., Maylands Estate (Harold Wood, Ltd.).

Hursley.—R.D.C. instructed S. to prepare site plan for houses on Chandlers' Ford site.

Keighley.—R.D.C. approved: 14 houses off Carrtane, Riddlesden, T. Lister.

Kettering.—Plans approved:—Phillips & Slow, Ltd., 4 houses, Bath-rd.; U.D.C., sub-station, Bath-rd.; St. Andrew's Church Institute Committee, for shed, Northall; J. Elworthy, Ltd., alterations and additions to "George Hotel," George-st.; Council, sub-station (No. 2 plan), Bath-rd.

Kidderminster.—T.C. propose baths at Caldwell. Cost £20,000. J. Hawcroft, B.S., 110, Mill-st.—Plans approved by T.C.: additions to premises, Coventry-st., for G. T. Cheshire & Sons, Ltd.; shops, Greenhill, for Co-operative Society; house and 2 shops, Coventry-st., Mrs. G. A. Owens; 4 houses, Hurcott-rd., A. Spilsbury, offices in Adam-st., for Lacy Bros.

Kingsbridge.—U.D.C. agreed to layout of building estate at Highhouse.—M.H. sanctioned 24 cottages at Wallingford.

Kirkintilloch.—Forty-two houses to be erected by Council. Burgh Architect and Surveyor, J. Coates.

Leeds.—Tenders to be invited for banking premises for Leeds Skyrack and Morley Savings Bank, upon site in Burley-rd. Bain & Johnson, architects.—Corporation to carry out scheme for public branch library at junction of Dewsbury-rd. and George-a-Green. Plans by Corporation Housing Architect.

Lewes.—Sussex C.C. proposing £20,357 for Pelham House extension scheme.

Lilbourne.—Warwickshire C.C. to undertake, at £25,000 to £30,000, widening and improvement of Watling-st. between Bransford bridge and road to Lilbourne.

Lincoln.—Wesleyan Authorities acquired site for chapel in St. Giles area.

Liverpool.—Rev. Vincent, of St. Anthony's, Queen's-drive, Mossley Hill-rd., propose church.

Llanybyther.—W. J. Williams, C.C., presided at meeting regarding proposed hall and institute.

London (Battersea).—B.C. recommends additional greenhouse at Morden Cemetery at £616 6s. 4d.—Plans passed:—C. Hoskins, office building, Belle Vue-rd. abutting upon approach to Wandsworth Common station.

London (Hammersmith).—L.C.C. recommend £4,543 for Wood-lane day open-air school, be enlarged to include provision of a tar-paved playground.

London (Lewisham).—L.C.C. recommend £200 in respect of erection of playsheds at Downderry L.C.C. school.

London (Lewisham).—B.C. to contribute to reconstructing of Ladywell-bridge. Cost is £61,000.—Plans passed:—F. G. Barnes, 5 houses, Woodcombe-cres.; G. T. Harman, 4 houses, Beaufort-gardens.

London (Islington).—B.C. to borrow for construction of electricity sub-station buildings at following sites:—Flowers-mews, £2,485, and Wharfdale-rd., £3,940.

London.—(Mile End).—L.C.C. recommend £607 in respect of formation of additional cubicles for nurses and furniture and equipment at Mile End hospital.

London (St. Pancras).—B.C. proposing small transformer sub-station in courtyard of Somers Town dwellings, by north-west corner of Aldenham House, near entrance to buildings in Aldenham-st.

London (St. Pancras).—L.C.C. recommend borrowing by B.C. of £2,468 for tuberculosis dispensary.

London (Stepney).—L.C.C. recommend £400 for electric bed lift building works at St. George-in-the-East hospital.

London (Wandsworth).—B.C. recommend £42,684 for by-pass rd. between York-rd. and Putney Bridge-rd.—Council recommend: Housing purposes, Garratt-lane site, adjoining Streatham cemetery, £21,205, and housing, Fountain-rd. site, £33,452.—Plans passed: Roy Gibson, Ltd., 8 houses with garages, Priory-lane, Putney (Templeton estate); E. W. Wallis, 6 houses, Combemartin-rd., Southfield; Mac Fisheries, Ltd., alterations and additions to 146, High-st., Putney; Clemence & Co., alterations and additions, "Ram Inn," High-st., Wandsworth; Bilham & Kidney, Ltd., 7 houses, Valleyfield-rd., Streatham; S. Boothman, 8 houses, Valleyfield-rd. and 4, Strathdale, Streatham; A. Soden, 4 houses, Mount Ephraim-rd., near its junction with Woodfield-av., Streatham; Paterson & Dickinson, Ltd., public baths, Manor-st., Clapham North; Edwin Evans & Sons, keeper's lodge and sports pavilion at Wandsworth and Wimbledone War Memorial Playing Fields, Putney Vale; R. Dixon & Sons, 6 houses, adjoining 35, Combemartin-rd., Southfield; Dent & Hollyer, Ltd., alterations, The Convent of Sacred Heart, Roehampton-lane, Putney.

Loughborough.—T.C. to apply to M.H. for £16,259 for 48 cottages on Ling Farm and Shelthorpe housing estates.

Lowestoft.—C.B. received M.H. approval of plans submitted for 108 houses on Kirkley Run housing site.—Plans passed: County Architect, East Suffolk C.C., for V.D. Clinic, Lowestoft and North Suffolk Hospital.

Manchester.—Burgess's Dairy Co., Ltd., Gartside-st., Cumberland-st. and Hardinge-st., Manchester, proposing conveniences on roof of buildings. Plans by J. Eades, A.M.I.C.E., consulting engineer, 17, St. Anne's-sq.

Manchester.—G. Westcott, F.M.S.A., Gamecock-chams., 13, Bridge-st., prepared plans for alterations to "Queen's Arms" public-house, Queen's-rd. and Topley-st., Queen's Park, for Boddington's Brewery Co., Ltd., Strangeways.—Senate of the Manchester Victoria University, Oxford-rd., proposing extensions to Ashbourne Hall (Hall of Residence), Wilmslow-rd. Plans by Thomas Worthington & Sons, FF.R.I.B.A., 178, Oxford-rd.—Pye & Bennett, 2, Booth-st., Manchester, architects for additions to "Ball Hotel," Burnage-lane and Fog-lane, Didsbury, for Hardy's Crown Brewery Co., Ltd., Renshaw-st., Hulme.—Roberts & Woo, 26, King-st., architects for garages and stores off Sherdley-rd., Crumpsall, and 6 houses and stores, Padiham-place, Cleveland-rd., Crumpsall, for J. C. Ward.—Broughton, Atkinson & Eagle, 37, Brown-st., architects for alterations to "Crown Inn" public-house, Holston-st., and Bath-st., Hembden-st., Hulme. Proprietors, Groves & Whitnal, Ltd., Regent-rd. Brewery, Salford.

Manchester.—Roberts & Wood, 26, King-st., preparing plans for petrol-filling station and house at corner of Wythenshawe-rd. and Princess-rd., Parkway, Wythenshawe estate, Northenden, for D. C. Morgan.—City Council instructed Town Planning architect, Mr. Barry Parker, F.R.I.B.A., Norton-way, Letchworth, to prepare designs for about 12 shops in Kenworthy area, Wythenshawe estate, Northenden.

Manchester.—Tenders shortly to be invited for additions to Jewish Memorial Hospital, Elizabeth-st., Cheetham, for Board of Management. Cost £5,000. Architect, H. Davies, 4, St. Mary's Parsonage, Blackfriars.

Market Bosworth.—R.D.C. under consideration 20 houses at Markfield.

Market Drayton.—U.D.C. proposing 50 houses in Salisbury-rd.

Matlock.—Trust Houses, Ltd., 53, Short's-gardens, London, W.C.2, propose alterations and additions to new "Bath Hotel." Plans by resident architect, S. W. Davies.

Mexborough.—Mr. G. H. Smith presented site to Church of England Authorities for church in Auckland-rd. Architect not yet appointed.

Middlesbrough.—Corporation Fire Brigade Committee to proceed with the fire station in Park-rd. South, at £30,000.

Milngavie.—Council to erect another 30 houses. F. Preston, architect and master of works to Corporation.

Monkseaton.—Wood & Oakley, F.R.I.B.A., 26, Morley-st., Newcastle-on-Tyne, architects for Church of St. Mary.

Motherwell.—Schedules for school been prepared. Architect, J. Stewart, Education Offices, Albert-st.

Mytholmroyd.—U.D.C. rejected proposal that they oppose building of £30,000 new middle school in district.

Newcastle-upon-Tyne.—Subject to approval of City Council, Trade and Commerce Committee to rebuild shed No. 16 at Quayside.

Newcastle.—City Council to erect nursery school at Byker to accommodate 200 children. Cost £8,924.

Nottingham.—Ice skating rink is to be built in Derby-rd.

Nuneaton.—B.C. to proceed with municipal offices at £79,000 and public library at £13,670.

Oakham.—R.D.C. under consideration houses at Manton.

Old Hill.—Plans prepared for new Labour Club in front of present premises. Cost £2,000.

Padiham.—The Surveyor to U.D.C. prepared plans for houses on land in St. John's-rd. and Burnley-rd. Council also negotiating for another site to accommodate about 100 houses.

Pellington.—Funds being raised for village hall.

Pontafract.—R.D.C. propose houses at Beal, Eggborough and Glasshoughton. J. E. Scott & Sons propose offices at Northfield Quarry.

Preston.—New municipal buildings to be erected at £130,000 on vacant land adjoining Sessions House, thus obtaining frontages to Birley-st. and Lancaster-rd., will be five stories in height. Briggs & Thornely, of Liverpool, architects.

Ramsbottom.—J. Baxter, Glen Top Brewery, Waterfoot, near Bacup, proposing to rebuild "Black Dog Hotel," Crawshawbooth. Plans by Butterworth & Duncan, architects, 2, Baillie-st., Rochdale.

Richmond (Surrey).—T.C. approved: W. F. Newson, parish hall, junction Sandycombe-rd. and Dudley-rd.; Fulham B.C., chapel, shelter and lavatory accommodation, Fulham Cemetery, Lower Richmond-rd.

Ripon.—Tenders invited for banking premises in Market-sq., for Yorkshire Penny Bank, Ltd. Chorley, Gribbon & Foggitt, architects, 3, Park-place, Leeds. Tenders invited for banking premises for Westminster Bank, Ltd. Gibson & Hill, architects, Harrogate.

Rotherham.—E.C. recommend B.E. to prepare revised plans for enlargement of Kimberworth-rd. and South Grove schools to provide accommodation for about 240 additional scholars at each school.—Committee further recommend revised plan and estimate of provision of swimming bath at proposed Clough Bank central school, at £11,500.

Rotherham.—T.C. approved application to M.H. for sanction of M.H. to borrowing £20,000 for extensions at Aldwarke sewage disposal works.

Rugby.—W. T. Loveday, A.R.I.B.A., 19a, Clifton st., in co-operation with Pick, Everard, Keay & Gimson, F.R.I.B.A., 6, Milestone-place, Leicester, preparing plans for sun pavilion at hospital of St. Cross, for the Board of Management. Cost £9,000.—W. A. Forsyth, F.R.I.B.A., 12, Stratford-place, W.1, prepared plans for completion of St. Peters' Church. Cost between £4,000 and £4,500.—Governors of lower school propose school buildings. Cost £4,250.

Salisbury.—City Council approved: 6 houses off Devizes-rd., W. Forder & Sons.

Sheffield.—Brungreange-rd. Circuit of Wesleyan Methodist Connection proposing Sunday school at Grenoside. Plans have been prepared by G. R. Bowers, architect, 13, St. James'-row, Sheffield. Trustees ad-pted plans and authorised architect to invite tenders.—Catholic Authorities acquired site on Wybourn housing estate for purpose new schools.—Corporation applying for sanction to borrow £36,000 for works of sewage disposal.

Sheffield.—Plans approved for pit-head baths at Outgang-lane, Dinnington, near Sheffield. Plans in architect's department of Miners' Welfare Committee, Dean Stanley-st., S.W.1.—Electricity Committee purchased land, Holmley-lane, Coal Aston, as site for a sub-station.—Brightside and Carbrook Co-operative Society proposing store on Wisewood estate, Sheffield. Plans prepared in architect's department, Co-operative Wholesale Society, Ltd., Balloon-st., Manchester.

Sheffield.—Work being commenced on new central library and art gallery, which Corporation are erecting to design of W. G. Davies, F.R.I.B.A., City Architect; E. Griffiths, The Temple, Dale-st., Liverpool, consulting engineer for the heating, hot water supply and ventilation.—E.C. erecting schools to accommodate 1,000 children on Southey Green estate, W. G. Davies, F.R.I.B.A., City Architect, E. Griffiths, consulting engineer, The Temple, Dale-st., Liverpool.

Shipley.—Congregational Union proposing Congregational Church, Bradford-rd.

Skipeton.—R.D.C. and P.C. to build 8 houses on remaining site. Mr. Ewart, architect, Stow-on-the-Wold, is to get out plans for 16 houses.

South Hiendley.—County E.C. propose elementary school to accommodate 500 children. Plans by H. Wormald, County Hall, Wakefield. Tenders invited.

Southport.—Plans approved for ward at Hall Hospital. Cost £37,000. Tenders invited.

Stansted.—R.D.C. recommend negotiating for land at Little Halingbury and erection of 6 to 12 cottages, and also 12 cottages at Stansted.

St. Faith's.—For 24 houses, D.C. to make application to Ministry for sanction to £7,800.

Stokesley.—M.H. inquiry been held into application of R.D.C. for £12,150 for sewage.

Sunderland.—M.H. held an inquiry into application by Corporation to borrow £6,250 to provide shelters and public conveniences at Seaburn.

Surbiton.—U.D.C. approved: 4 houses, 65, 67, 69, 71, Tolworth-rise, English Houses, Ltd.; semi-detached houses, Woodside-close, English Houses, Ltd.; shop with living accommodation over, 414, Ewell-rd., F. A. Simpson; showroom, Kingston By-Pass, G. Lambert & Co.; electricity sub-station, Portsmouth-rd., J. E. Franck; semi-detached houses, 10 and 12, The Ryeways, H. C. Jones & Co.

Tadcaster.—J. Smith's Tadcaster Brewery Co., Ltd., propose alterations and additions to "Travelling Man" Inn, York-rd. R. Wilson, architect. R.D.C. approved institute at Swillington, for Institute Committee. R.D.C. propose building of more houses at Sherburn, Swillington, and Tadcaster.

Tynemouth.—Joint conference of representatives of South Shields and Tynemouth Councils favoured scheme for tunnel under River Tyne at £1,240,000.

Wakefield.—Barnsley Brewery Co., Ltd., proposing alterations to "Grey Horse" hotel, Kirkgate. Plans by Resident Architect, H. T. Raper, Barnsley Brewery Co., Ltd., Barnsley.—City Council approved provision of maternity hospital, anti-natal clinic and child welfare centre at Manygates Park, Wakefield, to cost £18,000. Plans by City Architect, P. Morris, L.R.I.B.A., Town Hall, Wakefield.—Plans approved for vestry, St. Andrew's Church, for Trustees. Plans by W. H. Ogden, 33, St. Peterson-rd., and for sports pavilion in Thorne's-pk., for Corporation Electricity Committee Sports Club. City Architect, P. Morris, L.R.I.B.A., County Hall, Wakefield.—Plans prepared by A. & F. Moseleys, Ltd., for rebuilding of "Providence Hotel," Providence-st., for Leeds & Batley Properties, Ltd. Tenders invited. Corporation propose clinic and child welfare centre at Marygates-park, at £18,000. Gymnasium at Snapethorpe school at £5,700. St. Andrew's Church Council propose church vestry. Barnsley Brewery Co., Ltd., propose additions to "Grey Horse" hotel in Kirkgate. Plans by H. T. Raper, architect to Brewery Co.

Wakefield.—Schedule of proposals of E.C. comprises following: new school at Snapethorpe; improvement of system of heating and ventilation at Ings-rd. central school; accommodation to nursery room at Belle Vue school; installation of hot water in infants' schools; junior and infants' schools at Lwefield-lane; pavilions for Thornes-park and Clarendon-st. school playing-fields. City Architect, P. Morris, L.R.I.B.A.—City Council are applying for sanction for £1,015 for alterations to Snapethorpe Hall; erection public conveniences on the Pincheon-st. area.

Wallasey.—Proposed new open-air swimming pool adjoining Harrison-drive bathing station been subject of M.H. inquiry.

Walsall.—R.D.C. received approval of proposal to proceed with 78 additional houses—30 in Winterley-lane, Rushall, and 48 in Walsall-rd., Aldridge.

NEW CINEMAS

Birmingham.—The contract for the erection of a large new cinema, to be erected at the junction of Chester-road and Gravelly-lane, Erdington, near Birmingham, has been placed with Messrs. G. T. Stephens & Son, Boldmere-road, Wylde Green, Sutton Coldfield. The cinema will be built for Mr. J. Cohen, of Birmingham, to plans prepared by Mr. Harold S. Scott, A.R.I.B.A., King's Court, 115, Colmore-row, Birmingham.

Fort William.—There is to be erected in Fort William by Messrs. Cowieson, Ltd., builders, Charles-street, Glasgow, a new cinema from plans by their own architects.

Lewisham.—The B.C. has passed plans to build a cinema on south side of Sydenham-road. Mr. A. C. Matthews, 86, College-road, S.E.21, is connected with the scheme.

Liverpool.—A contract for the erection of a new cinema in Oakfield-road, Liverpool, for the General Theatre Corporation, Ltd. (Messrs. Gray & Evans, 51, North John-street, Liverpool, architects), has been awarded to Messrs. George Platt & Sons, Ltd., Liverpool.

Electrical Contracting Wages.

The sub-committee of the Electrical Trades Unions and the National Federated Electrical Association, which declares wage variations in the electrical contracting industry, has fixed new wage rates based on the variations in the cost of living. The effect is an increase of ¾d. an hour for all four grades. The new rates come into effect on the first pay day in January.

L.M.B. Sports Association.

We give below results and table to Saturday last, November 22, in connection with the Football League of this Association :—

RESULTS.

Elsilrae ...	... 0 Wills	...	... 9
Scafco ...	... 1 Trocoll	...	... 2

TABLE.

	P.	W.	D.	L.	Goals. F.	A.	Pts.
Wills ...	7	7	—	—	44	6	14
Trocoll ...	8	5	2	1	45	10	12
Portland ...	7	4	1	2	16	12	9
Scafco ...	7	4	—	3	16	16	8
Higgs ...	6	2	1	3	22	19	5
Elsilrae ...	7	—	1	6	4	44	1
Downs ...	8	—	1	7	6	46	1

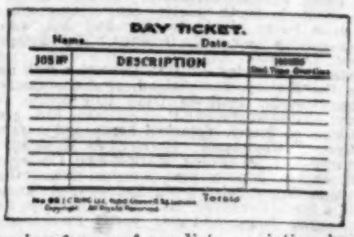
TRADE NEWS

British Industries Fair, Birmingham.

The latest improvements in machines, apparatus and tools for various plant connected with the building industry will be found at the Heavy Section of the British Industries Fair, at Birmingham, which is being held from February 16-27. The schedule of British goods displayed exclusively in Birmingham comprises:—Engineering, electricity, gas, power plant, machinery, heating and cooking, hardware, ironmongery, brassfoundry, metals, building, public works, roads, mining and transport, besides allied industries.

Time-Sheets for Contractors.

The efficient keeping of time-sheets is a most important detail of the contractor's or builder's business. We have received from Messrs. J. C. King, Ltd., of 42-60, Goswell-road, E.C., a sample book of time-sheets, prime-cost sheets, memos, etc., which would seem to cover every conceivable requirement that any firm might experience.


DAY TICKET.

Name. Date

JOB No.	DESCRIPTION	HOURS Std. Time	Overtime

Varying forms of pay-lists, variation sheets, vouchers, estimate forms, sand or ballast books, order books, surveyors' certificate books, transfer books, material, contract and prime-cost books—these and a hundred more are shown. Messrs. King will also rule and print to any pattern. A sample time-sheet is shown above. No. 60 list is obtainable from the makers upon request.

Perforated Metals.

A large and handsomely produced catalogue from Messrs. G. A. Harvey and Co. (London), Ltd., serves as a reminder of the vast variety of perforated metals for any style of screening, grading, cleaning, sorting, and filtering requiremetns that are from time to time found necessary. There are some delightful varieties of ornamental panels and covers illustrated—for use as radiator and electric heater covers, pipe guards, grilles and ventilator panels which offer a happy solution of bringing such unsightly members as radiators, pipings, and ventilators into the general decorative scheme. These grilles can be obtained in a variety of finishes and colours, and of any metal desired. Messrs. Harvey have a large selection of standing designs, but are always ready to prepare new designs to architects' requirements. This catalogue should be in the trade section of every architect's and manufacturer's reference library: a copy can be obtained upon request from Woolwich-road, S.E.7.

The New Voryd Bridge, Rhyl.

The joint committee of Denbigh and Flint County Councils have accepted the tender of Messrs. Dorman, Long & Co., Ltd., of Middlesbrough and London, for the construction of the new Voryd Bridge and approaches at Rhyl, the inclusive price being £66,000. The work includes the supply of two 150 ft. bridge spans carrying a 20 ft. wide road and two footpaths, sinking two caissons by the pneumatic process 89 ft. into the bed of the river, the construction of two concrete abutments 35 ft. high, a concrete sea wall 300 ft. long, and the approach roads.

Thorns Summer Camp: Installation of Clock.

In connection with the recently completed Isle of Thorns summer camp for boys, we learn that the clock in the tower, which is a prominent feature, was made and installed by Messrs. J. W. Benson, Ltd., 62 and 64, Ludgate Hill, E.C.4.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames, up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 12 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster	2 14 3	Do. Bullnose	9 15 0
Do., Bullnose	3 7 3	Blue Wire Cuts	7 5 0
White Midhurst Facing Bricks (delivered London site)			5 0 0

Best Stourbridge Fire Brick:—
2½ in. ..... 8 11 0 3 in. 10 3 0

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretchers	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers	26 10 0
		One Side and two Ends	30 10 0
Headers	20 10 0	Two Sides and one End	31 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	Splays, and Squints	28 0 0

Second Quality, £5 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS

Delivered London

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in per yd. super	2 9
2½ in. „ „	2 4	4 in. „ „	3 6

	s. d.	
Thames Ballast	9 9 per yd	delivered 2 miles radius Paddington.
Pit Sand	12 0 „ „	
Thames Sand	12 0 „ „	
Best Washed Sand	12 6 „ „	
¾ in. Shingle for Ferro-Concrete	11 6 „ „	
½ in.	12 0 „ „	
¾ in. Broken Brick	11 6 „ „	
Fan Breeze	8 0 „ „	

Per ton delivered in London area in full van loads.
Best Portland Cement. British. Standard Specification. Test £2 6 0 to £2 8 0 20s. alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 7 6
Vitrocrete „ „	0 7 6
Super Cement (Waterproof)	3 16 0
Ciment Fondu (F.O.R. Works)	4 15 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.
Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE—RANDOM BLOCK—Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE.— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d per ft. cube extra. NOTE.—1d. per ft. cube extra for every foot over 20 ft average, and ½d. beyond 30 ft.	
HORTON-WOOD STONE.— F.O.R. Quarries, Wirksworth, Derbyshire,	s. d.
Random blocks from 10 ft. and over 9" ft. cb.	14 0
Sawn two sides	„ 22 6
Sawn three or four sides	„ 27 6
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto	„ 6 0
3 in. sawn two sides slabs (random sizes)	„ 2 3½
2 in. to 2½ in. sawn one side slabs (random sizes)	„ 1 6½
2½ in. to 2 in. ditto, ditto	„ 1 3½
HARD YORK— Delivered at any Goods Station, London.	
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto	„ 6 1½
3 in. sawn two sides slabs (random sizes)	„ 2 1½
„ in. ditto ditto	„ 2 10
2 in. self-faced random flags Per yd. super	8

CAST STONE

Delivered in London area in full van loads, per ft. cube: Plain .8s. 6d.; Moulded, 9s. 6d.: Cills, 10s. 0d

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
9 × 11	£27 10	3 × 6	£20 0
8 × 9	25 0	3 × 11	22 0
4 × 8	25 0	7 × 11	23 0
4 × 7	23 0	3 × 9	22 0
3 × 8	20 0	2½ × 9	22 0
3 × 7	20 0	3 × 4½	20 0
2½ × 7	20 0	3 × 4	20 0

PLANED BOARDS.

1 × 11	£28 0	1 × 9	£26 0

PLAIN EDGE FLOORING

Inches.	per sq.	Inches.	per sq.
⅜	18/-	1¼	29/-
½	20/-	1½	33/-
1	23/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.	Inches.	per sq.
1	24/-	1¼	30/-
1½	34/-		

MATCHING (BEST).

Inches.	per sq.
⅜	16/6
½	19/-
1	24/-

BATTENS	s. d.	SAWN LATHS.	s. d.
¾ × 2 per 100 ft.	2 6	Per bundle	2 0

1 INCH AND UP THICK.

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	£4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	31 0 0	18 by 10	17 5 0
22 by 12	27 19 6	18 by 9	15 10 0
22 by 11	25 5 0	16 by 10	14 14 6
20 by 12	24 7 6	16 by 8	11 5 0
20 by 10	20 17 6		

TILES

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	£5 2 6
ditto hand-made ditto	5 7 6
Ornamental ditto	5 12 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—	£ s. d.
R.S. Joists, cut and fitted	£12 10 0
Plain Compound Girders	14 10 0
„ Stanchions	16 10 0
„ in Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	12 0 0	⅝ in. to ½ in.	10 15 0
⅜ in.	11 0 0	¾ in. to 2¼ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ¼ in. and under.	Fittings. Over ¼ in.	Flanges. ¼ in. and under.	Flanges. Over ¼ in.
	%	%	%	%	%	%
Gas	65	52½	45	47½	55	57½
Water	61½	48½	40	42½	50	52½
Steam	57½	45	35	37½	45	47½
Galv. gas	52½	40	35	37½	45	47½
Galv. water	47½	35	30	32½	40	42½
Galv. steam	42½	30	25	27½	35	37½

*C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10½d.	9d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3½d.

*O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/1½	2½d.
5 in.	1/5	1/2½	3½d.

*RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/2½	9½d.	1/2
2½ in. „	1/3	10½d.	1/4½
3 in. „	1/6½	1/1½	1/6½
3½ in.	1/11	1/4½	1/11½
4 in. „	2/2½	1/7½	2/4½

*The above R.W. Goods prices are subject to an advance of 5% from October 29th, 1929.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 5	1 9	2 1
2½ in. „	2 9½	1 10½	2 7
3 in. „	3 0	2 1	3 1
3½ in. „	3 3	2 7	3 7
4 in. „	3 8	2 11	4 1½

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	3 6	4 6	7 0
4 in. „ „	4 8	5 5	9 3
5 in. „ „	6 3	9 —	15 0
6 in. „ „	7 3	1 6	19 0

Gaskets for Jointing 41/- per cwt.

	Per ton in London.		
IRON—	£ s. d.		£ s. d.
Common bars	11 0 0	to	12 0 0
Staffordshire Crown Bars—Good merchant quality	11 5 0	to	12 5 0
Staffordshire Marked Bars	14 0 0	...	15 0 0
Mild Steel Bars	9 10 0	...	10 10 0
Steel Bars, Ferro-Concrete quality, basis price	9 0 0	...	10 0 0
Hoop iron, basis price	11 0 0	...	12 0 0
„ Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g.	11 10 0	...	12 0 0
„ „ „ 24 g.	13 0 0	...	14 0 0
„ „ „ 26 g.	15 0 0	...	16 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. by to 3 ft. to 26 g. No. 1 quality £4 per ton extra.	18 10 0	...	19 5 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	18 10 0	...	19 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	20 10 0	...	21 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	22 10 0	...	24 10 0
Best Soft Steel Sheets, 26 g.	24 0 0	...	25 0 0
Cut Nails, 3 in. to 6 in.	16 0 0	...	17 0 0

Under 3 in. extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s, 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	25 0 0
Pipe in coils	25 10 0
Soil pipe	28 10 0
Compo pipe	20 10 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills per ton	£14 10 0

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 3
Strong sheet	„	1 0
Thin	„	1 1
Copper nails	„	1 7
Copper wire	„	1 4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in	1½ in.	2 in.	3 in.
6 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

TIN.—English Ingots, 1/8 per lb. SOLDER.—Plumber's 8d., Tinmen's 10d., Blowpipe 11d. per lb.

PAINTS, &c.

Raw Linseed Oil, in pipes	per gallon	0 2 8
„ „ „ in barrels	„	0 2 10
„ „ „ in drums	„	0 3 1
Boiled „ „ in barrels	„	0 3 1
„ „ „ in drums	„	0 3 3
Turpentine in barrels	„	0 3 4
„ in drums (10 galls)	„	0 3 6
Genuine Ground English White Lead, per ton (in not less than 5-cwt. casks.)		48 0 0

Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*cont.*)

PAINTS, &c.—(*cont.*)

GENUINE WHITE LEAD PAINT.

		£	s.	d.
"Father Thames," "Nine Elms," "Park," "Supreme," "St. Paul's," "Merseyside," "Palace," "J" Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots	per ton delivered...	66	10	0
Red Lead, Dry (package extra) ...	per ton	37	0	0
Best Linseed Oil Putty	per cwt.	0	15	6
Fillers		0	16	6
Size. KD quality	firkin	0	3	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ...	2½d.	21 oz. fourths	6½d.
15 „ thirds ...	3½d.	21 „ thirds	9d.
21 „ fourths ...	5½d.	Obscured Sheet, 15 oz. ...	3½d.
21 „ thirds ...	4½d.	„ „ 21 oz. ...	4½d.
26 „ fourths ...	4½d.	Fluted, 15 oz. 7d., 21 oz.	9½d.
26 „ thirds ...	6½d.	Rm'lled, 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
¼ Rolled plate	4½d.
⅜ Rough rolled	5½d.
½ Rough rolled	6½d.
Figured Rolled, Baltic, Oceanic, Arctic, Slip-polvte, and small and large Flemish White...	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	5d.
Tinted do.	7d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per foot s. d
Clear sheet—not exceeding 1 foot	1 0
Do. do. 2 feet	1 3
Do. over 2 feet	1 9
Polished plate—not exceeding 1 foot	1 6
Do. not exceeding 2 feet	3 0
Cathedral—not exceeding 1 foot	1 0
Do. larger sizes	1 6
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 15 inches or not exceeding 2 feet	1 0
2/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide ...	2 6

ULTRA VIOLET RAY GLASS.

RAYI-ITE.

Up to 2 sq. ft. 1/-. Up to 4 sq. ft. 1/2. Up to 8 sq. ft. 1/3.

FORESON.

HORTIVEX (HORTICULTURAL).

Up to 1 sq. ft. 7d. Up to 2 sq. ft. 8d. Up to 3 sq. ft. 9d. (Not exceeding 24 in. by 15 in.)

Up to 4 sq. ft. 10d. Up to 8 sq. ft. 11d

VARNISHES, &c.

		Per Gallon £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	6
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	0
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	6
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	6
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	0
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	0
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebene		0	9	0
Cullman Black Enamel		0	7	0

Hospital for Sick Children: Rebuilding.

The Prince of Wales last week visited the Hospital for Sick Children, Great Ormond-street, of which he is president, and launched a special appeal for the reconstruction and re-equipment of the building. It is estimated that the cost of rebuilding the hospital will amount to £500,000, and this sum is asked for, but the architect, Mr. E. Stanley Hall, V.P.R.I.B.A., has so planned the scheme that it can be carried out in stages as the funds are provided. Every ward of the new hospital will face south and have an out-side balcony. The main block for patients will be set back 250 ft. from Great Ormond-street, and between this and an out-patients' block with a low elevation there will be a garden 190 ft. long and 65 ft. wide. The existing chapel and out-patients' hall are incorporated in the new scheme, and there is to be a staff home in a separate building behind the hospital and fronting Guilford-street.

THE SCOTTISH BUILDER

HOUSING PROGRESS IN SCOTLAND

The following figures show the progress that has been made in State-aided housing schemes in Scotland to October 31, 1930 :—

	Completed.	Under construction.
1919 Act	25,129	—
Do. (by public utility societies)	421	—
Private subsidy schemes (1919 Additional Powers Act)	2,324	—
Slum clearance schemes	12,175	2,130
1923 Act :—		
By local authorities ...	4,033	—
By private enterprise ...	18,879	945
By public utility societies	80	—
1924 Act :—		
By local authorities ...	46,405	6,051
By private enterprise ...	2,931	57
By public utility societies	127	16
1930 Act :—		
By local authorities ...	—	58
Demonstration houses ...	17	—
Steel houses erected on behalf of Government by Scottish National Housing Company	2,552	—
	115,073	9,257

NEW BUILDINGS

Dalmuir.—HOUSES.—The Clydebank Dean of Guild Court has passed plans for the erection by the Town Council of 192 houses at Mount Blair, Dalmuir, at an estimated cost of £56,300.

Dundee.—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the office of the City Engineer :—Cowgate—alterations for the National Bank of Scotland, Ltd. (Mr. R. Gibson, architect, 2, India Buildings); Gray-street, Broughty Ferry—additions for Messrs. Stevenson & Johnstone (Messrs. James Lowe & Co., architects, 104, Commercial-street); Kinghorne-road—bungalow for Mr. David Bowman (Messrs. Gauldie, Hardie & Sharpe, architects, 26, Commercial-street); Norrie-street—alterations for Margaret Wilson (Messrs. Gauldie, Hardie & Sharp, architects, 26, Commercial-street).

Edinburgh.—BUILDING.—Among petitions granted by the Dean of Guild Court were :—City—demolition and reconstruction at 2-4, Tolbooth Wynd, Leith; City—electricity transformer-house at Craighouse-road; Carleton Henry Dunlop—four bungalows at Strachan-road, Blackhall; the Leith Nautical College—additional story to engineering wing at Nautical College, Commercial-street, Leith; J. M'Donald—two cottages and two garages at Milton-road East, Portobello; Scottish Greyhounds Company—kennels, etc., at the Royal Gymnasium Grounds, Royal-crescent.

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'† Plasterers'.†
Aberdeen	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Arbroath	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Ayrshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2 1/3
Berwickshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/8	†1/2½
Broughty Ferry	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Clackmannanshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Dumbartonshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Dumfries	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Dumfriesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Dunoon	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
East Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Forfarshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Fort William	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/2
Galashiels	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8½	‡1/2½ †1/2½
Hawick	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Inverness	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1 1/2
Inverurie	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7½	1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kincardineshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Kinross-shire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Kirkwall	1/5	1/5	1/5	1/6	1/5	1/5	1/6	1/-
Lanarkshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Midlothian	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8½	‡1/2½ †1/2½
Peeblesshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Perthshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
Peterhead	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/7½	1/2
Renfrewshire	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Rothesay	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Roxburghshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1½
St. Andrew's	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Selkirkshire	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/8	‡1/2½ †1/2½
Stirlingshire, West	1/6	1/6	1/6	1/8	1/6	1/6	1/6	1/1
Stornoway	1/6	1/6	1/6	1/7	1/6	1/6	1/7	1/1
West Lothian	1/7	1/7	1/7	1/8	1/7	1/7	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8½	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 933.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	"	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	0	11
Centre for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	"	—	49/-	57/6	65/-
Do. matchings	"	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	"	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1½ in.	per ft. run	0	9
Mahogany handrail: average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	44	0
Do. Do. in flats	"	43	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

			s.	d.
Render, float and set in lime and hair	per yard sup.		2	6
Do. Do.	Sirapite	" "	2	9
Do. Do.	Keen's	" "	4	0
Add saw lathing		" "	1	7
Add metal lathing		" "	2	6
(Not including hangers or runners, etc. for suspended ceilings.)				
Portland cement screed		" "	2	2
Do. plain face		" "	3	3
Mouldings in plaster		per 1 girth	0	1½
One-and-a-half granolithic pavings		per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	"	1	1
⅛-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
¼-in. wired cast plate	" "	1	4

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

*These prices apply to *new buildings only.* They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office.*

Altrincham.—Extensions to the dining-hall at the County High School for Girls. Mr. F. Anstead Browne, F.R.I.B.A., County Architect, Newgate-street, Chester:—
‡L. Brown & Sons, Ltd., Wilmslow.

Astley.—New Independent Methodist Chapel. Mr. W. Thornley, M.S.A., architect, 46, Wallgate, Wigan:—
*T. Collier & Son, Brown-street Works, Leigh, Lancs.

Atherton.—72 non-parlour houses on the Hag Fold estate, for the U.D.C.:—
*G. & J. Seddon, Ltd., 5 and 7, Manchester-road, West, Little Hulton, Bolton

Belper.—Houses in the following parishes:—8 in Duffield, 10 in Holbrook, 8 in Holloway, 8 in South Wingfield, for the R.D.C. Mr. R. C. Cordon, engineer and surveyor:—
*Bowmer & Kirkland, Heage, near Belper, Derbys.

Billericay.—External painting of 46 cottages in various parts of district and 91 ventilating columns situate near Brentwood, Shenfield, Billericay and Wickford, for the R.D.C. Surveyor:—
*Chas. J. Jennings, Margaretting, Ingatestone.

Birmingham.—Art gallery in Cannon Hill-park, Pershore-road. Messrs. A. L. Snow & Leeson, architects, 110, Colmore-row:—
*Maddocks & Walford, Tyburn-road, Graveley Hill, Erdington, Birmingham.

Birmingham.—Block of shops with living accommodation in Hagley-road, Edgbaston. Mr. Jack Cotton, architect, 36, Waterloo-street:—
*B. Whitehouse, Ltd., 247, Monument-road, Birmingham.

Birmingham.—High-class retail shops with living accommodation on the Walsall-road at Hampstead. Mr. Edgar Lucas, architect, 22, Quadrant-chambers, New-street:—
*H. Johnson, 15, Gainsborough-road, Hampstead, Birmingham.

Bognor Regis.—Underground sewage pumping station, for the U.D.C. Mr. J. Draper, engineer and surveyor:—

Bierrum & Partners, Westminster	£2,993 0 0
A. G. Osenton, Hayling Island	2,181 0 0
A. R. Dairy, Ltd., Bognor Regis	1,873 14 10
Howard & Farrow, Ltd., Golders Green	1,837 4 10
A. E. Farr, Ltd., Westminster	1,800 0 0
*Morrison (Roads), Ltd., Woking	1,735 1 2

Bradford.—New reinforced concrete bridge over the River Aire at Apperley Bridge, for the T.C.:—
*Lotz & Kier, Stoke-on-Trent.

Brentford and Chiswick.—Two houses and 4 flats at Fraser-street, Chiswick, for the U.D.C. Mr. Edward Wills, Engineer and Surveyor:—
*T. Millman, Ltd., 1a, Gloucester-road, Ealing, W.5. £2,675

Brighton.—Alterations and improvements to the "Half-Way House," Portslade, for Messrs. Tamplin & Sons Brewery, Brighton, Ltd., of Cannon Brewery, Brighton:—
*— Saunders, 15, Richmond-place, Brighton.

Bristol.—Oil Gas works, for the G.W. Rly. Mr. F. R. E. Davis, secretary, Paddington Station, London, W.2:—
*C. A. Hayes & Son, Bristol.

Bristol.—Twenty houses on the Hillside-road housing site, St. George, and 108, St. Anne's housing site, for the T.C. Mr. Lessel S. McKenzie, City Engineer and Surveyor, Housing Department, 51, Prince-street:—
108 houses, St. Anne's site:—
Group "A," 92 houses—*Tudball & Gregory, 6, Deep Combe-road, Ashton Gate, Bristol.
Group "B," 56 houses—*F. J. Roe, 16, Tennis-road, Knowle, Bristol.
20 houses, Hillside site:—
*Bissicks & Fletcher, 280, Whitehall-road, St. George, Bristol.

Cheam.—Internal painting of blocks A, B, C and part of the administrative block, at Cheam Sanatorium, for the Croydon B.C.:—
*W. Sandford, Thornton Heath £337 18

Chesterton.—Erection of houses at Fulbourn and Teversham, for the R.D.C.:—

Fulbourn (per pair)—	
G. B. Mortlock	£790 0
*Lane & Manning	774 0
Stevens Bros.	771 0
P. Shanks	765 0
J. Brignell	754 10
Teversham (per pair)—	
A. Manning	795 10
G. B. Mortlock	780 0
Stevens Bros.	769 0
Lane & Manning	766 0
P. Shanks	765 0
*J. Brignell	750 0

Clun.—Four houses at Powell's-lane, Clun, and four at Clunton, for the R.D.C. Mr. H. A. Elliott, surveyor, Bishop's Castle, Salop:—

	Clun.	*Clunton.*
N. Lewis & Son, Clun	£2,100	£1,750
W. W. Vaughan, Clun	2,100	1,620
E. Reddoes, Bishop's Castle	1,900	1,482
W. Higley, Shrewsbury	1,870	1,770
W. H. Sherratt, Church Stretton	1,817	1,435
N. Breeze, Clun	1,792	1,780
J. L. Leech & Co., Ludlow	1,700	†1,380
D. L. Evans, Llandudno Junction	1,691	1,544
J. Bromley, Church Stretton	1,690	1,410
J. H. Grindall, Hawthorn House, Minsterley	†1,628	1,600

Derby.—Senior school in Nottingham-road, for the E.C.:—
‡Direct labour £33,891

Durham.—Heating at Benfieldside new school, for the County E.C. Mr. F. Willey, F.R.I.B.A., County Architect, 34, Old Elvet:—
*G. N. Haden & Sons, Ltd., Newcastle-on-Tyne.

East Dereham.—New central school, Crown-road, East Dereham, and for enlargement of the existing school, for the Norfolk E.C. Mr. J. S. Davis, secretary, Education Offices, Stracey-road, Norwich. Quantities by Mr. F. G. Limmer:—
*E. Melton, Brisley, Norfolk £10,090

Edmonton.—Alterations to the heating apparatus at the fire station, for the U.D.C.:—
*C. P. Kinnell & Co. £120

Evington.—150 houses for Mr. T. H. Bowell, L.R.I.B.A., Spencer Chambers, 4, Market-place, Leicester. Own plans:—
*Wright & Co., South Wigston.

Faversham.—Installation of electric light in 70 houses on the Preston housing site, for the Corporation. Mr. S. P. Andrews, Borough Surveyor:—
Non-parlour houses—
*Bligh & Sons, 1 & 2, North-lane, Canterbury £4 18 3
Parlour houses—
*Bligh & Sons, 1 & 2, North-lane, Canterbury 4 13 9

Glasgow.—Alterations and improvements to premises at The Cross, Paisley, for the Union Bank of Scotland, Ltd., 110, St. Vincent-street. Messrs. Abercrombie & Maitland, architects, 1, County-place, Paisley:—
*J. Crawford, Glendoune, Potters Hill, Paisley.

Glossop.—Reslating in connection with removal and replacement of about 96 squares of slating at Wood's public baths, together with other contingent works, for the T.C. Mr. Geo. Faulds, Borough Engineer and Surveyor. Quantities by the Borough Surveyor's department:—
*Wm. Proctor & Sons, 54, Denby-street, Sheffield.

Hamble (Hants).—12 non-parlour type houses at Verdon-avenue, Hamble, for the South Stoneham R.D.C. Mr. E. Wynter-Cross, clerk:—

Hales Bros., Hedge End	£4,698
J. H. Cook, Hamble	4,545
L. Blackman, Botley	4,491
Venning Bros., Eastleigh	4,479
W. H. Lee, Bursledon	4,362
Hodder & Houghton, Hedge End	4,360
*C. Samways, Hedge End	4,068

Hawarden.—Sewerage works at Caergwrle, for the R.D.C. Mr. F. Barrett, engineer. Quantities by Messrs. Elliott & Brown, Burton-buildings, Parliament-street, Nottingham:—
†Horace Price, Ewloe Green, near Chester £11,158 4

Heckmondwike.—Alterations to the "Queen Hotel," for Messrs. Bentleys Yorkshire Breweries, Ltd., Eshaldwell Brewery, Woodlesford, nr. Leeds. Messrs. Stead & Walshaw, architects:—
*J. Greaves.

Hornsey.—Alterations and additions to the High School for Girls, Hornsey, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect:—

L. & W. Whitehead, Ltd., London	£15,907
Stevens & Sons, Highgate	15,830
F. Cottrell, Ltd., Hornsey	15,680
W. Lawrence & Son, Ltd., London	15,661
W. Lacey, Hounslow	15,596
G. Groves & Son, Tottenham	15,540
Albert Monk, Edmonton	15,460
A. Fairhead & Son, Ltd., Enfield	15,454
H. Knight & Son, Tottenham	15,445
C. J. Newby & Bros., Southgate	15,260
‡J. Laing & Son, Ltd., Mill Hill	15,040

Hornsey.—Alterations to the school and erection of a new science block at Stationers' Company's school, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect:—

F. Cottrell, Ltd., Crouch Hill	£27,980
Stevens & Sons, Highgate	26,896
J. Laing & Son, Ltd., Mill Hill	26,831
A. Fairhead & Sons, Ltd., Enfield	26,796
W. Lawrence & Son, Ltd., London	26,600
C. Miskin & Sons, Ltd., St. Albans	26,558
L. & W. Whitehead, Ltd.	26,405
Albert Monk, Edmonton	26,370
G. Groves & Son, Tottenham	26,100
C. J. Newby & Bros., Southgate	25,966
‡H. Knight & Son, Tottenham	25,943

Horsforth.—Extensions to the sewage ironwork, comprising channel penstocks, sluice doors, sludge valves and manhole covers, for the U.D.C. Mr. Jas. E. Aldersley, engineer:—
*Adams Hydraulics, Ltd., York ... £160 8 10

Horsforth.—Extensions of the sewage disposal works and surface water sewering, for the U.D.C. Mr. Jas. E. Aldersley, engineer:—
*Phineas Drake & Sons, West Royd, Allerton-road, Bradford £2,170

Hove.—Erection of Knoll school:—
†W. G. Tarrant, Ltd., Byfleet £19,250

Huddersfield.—17 semi-detached scullery houses on the Lowerhouses estate, for the Corporation. Borough Architect and Surveyor, 26, Ramsden-street:—
Mason—*J. T. & H. Bottomley, Lindley.
Joiner—*J. Lawton & Sons, Slaithwaite.
Plumber—*H. C. Stringer, Crosland Moor.
Plasterer—*W. E. Jowett, Fitzwilliam-street.
Slater—*Wm. Smith & Sons, Milnsbridge.
Painter—*E. Crowther, Newsome.
Electrician—*H. Hall, Birkby.
Concreter—*J. Cooke & Sons, Ltd., Little Royd.
(All of Huddersfield.)

Hull.—New shops and offices on lots 33 and 34, New-street, from Paragon Station to Beverley-road, for the Shell Mex, of Hull. Messrs. Scarlett & Ashworth, architects, 43, Bedford-row, W.C.1. Quantities by Mr. H. Ashley Cooper, Southam chambers, Waltham-street:—
*R. G. Tarran, Ryde-avenue, Hull ... £46,970

Keynsham.—Repairs to houses, for the R.D.C. Mr. H. W. Argile, Building Surveyor, 16, High-Street, Keynsham, near Bristol:—

E. G. Joad, Sherborne	£428	11 0
Payne Bros., Bristol	271	15 0
T. Cant & Son, Sladebrook	258	3 6
H. Evans, Bristol	230	0 0
S. Claverdon, Claverham	228	5 0
H. Bennett, Bristol	194	10 0
Geo. Wiltshire, Keynsham	172	1 6
W. Wiggins & Sons, Keynsham	160	16 9
*Edward Wiggins, High-street, Keynsham	148	6 6
G. A. Williams, Bath (*a*)	93	12 4
Price & Sons, Bristol (*b*)	95	8 0
S. Lovell, Bristol (*b*)	80	3 0

(*a*) Subject to amendment.
(*b*) One section only.

Kidderminster.—Alterations to the High-street entrance of the retail market:—
*L. Thompson, Kidderminster £3,712

Kildwick.—Alterations and additions to the "White Lion" Hotel, for Messrs. J. Tetley & Sons, Ltd., The Brewery, Leeds. Messrs. Kitson, Parish, Ledgard & Pyman, architects:—
*O'Brien & Richmond.

Kingston-upon-Hull. — Concrete walls round Pickering-park boating lake and Ferens boating lake, East-park, for the T.C. Mr. T. Thomas, City Engineer:—
Pickering boating lake—
*Kettlewell, Son & Co., Ltd., Colonial-street, Hull £2,426
Ferens boating lake—
*City Engineer, Hull 1,150

Leeds.—For (*a*) wall and floor tiling and mosaic work at the shops and offices in The Headrow; (*b*) electrical work at offices and shops at The Headrow, for the Corporation. Mr. J. E. Acfield, City Architect:—
(*a*) *J. & H. Patteson, Manchester ... £3,768
(*b*) *H. Casse 998

Leeds.—Public conveniences at Lower Town-street, for the Corporation. Mr. J. E. Acfield, City Engineer:—
Main contract—
*Direct labour.
Asphalt—
*Tunstall's Seyssel and Limmer Rock Asphalte Co., Ltd.

Leeds.—Alterations and additions to the "Tonbridge Hotel," Tonbridge-street, for the Leeds and Batley Properties, Ltd. Messrs. A. & F. Mosley, Ltd., architects, Wormald-row:—
*Chas. Higgins.

Leeds.—Alterations to the "Woodpecker Inn," York-road, for Messrs. Ind. Coope & Co., Ltd., of Burton. Messrs. A. & F. Mosley, Ltd., architects:—
*W. T. Pearson, Ltd.

Leeds.—For Chemistry block at the University. Messrs. Lanchester & Lodge, architects, 19, Bedford-square, W.C.1:—
Main contract—*Wm. Airey & Co., Ltd.
Steelwork—*Redpath Brown & Co., Ltd.
Asphalt.—*Tunstall's Seyssel & Limmer Rock Asphalte Co., Ltd.

Liverpool.—Billiards hall at Lark Hill-place, for the Lancashire and Cheshire Billiard Halls, Ltd. Messrs. Medcalfe & Medcalfe, FF.R.I.B.A., architects, 3, Stanley-street:—
*Campbell & Turner, Liverpool.

London.—Tenders accepted by H.M. Air Ministry for week ending November 15:—
Artificers' work (Catfoss and Skipsea)—J. Taylor & Son, 38-40, Saner-street, Hull.
Artificers' work (North Coates and Donna Park)—F. G. Rooney, North Somercotes, near Louth, Lincs.
Married quarters (Farnborough)—Geo. Kemp Stroud & Co., Ltd., Elms-road, Aldershot.

London.—Wiring and fitting 149 flats at Clarence-buildings, Kentish Town, and for carrying out similar work to 176 flats at King's Cross, for the St. Pancras B.C.:—

	Clarence-buildings. 537 *points,* 19 *rising mains.*		*East End-dwellings.* 536 *points,* 14 *rising mains.*	
	Screwed tubing.	*Lead covered cables.*	*Screwed tubing.*	*Lead covered cables.*
Service Electric Co., Ltd.	£1,155 0 0	£1,040 0 0	£1,213 14 0	£1,092 7 0
British Contracts Co.	939 8 0	978 13 0	863 4 0	927 4 0
Twentyman & Willmott, Ltd.	920 0 0	915 0 0	896 0 0	885 0 0
White, Bays & White	863 0 0	766 0 0	860 0 0	760 0 0
W. G. Bailey	787 18 0	—	996 0 0	—
L. T. Hall	737 0 0	737 0 0	—	—
W. T. Clarke & Co., Ltd.	729 0 0	810 18 6	822 14 8	895 8 10
P. J. Driscoll & Co., Ltd.	712 8 0	944 5 0	729 6 0	987 5 0
H. J. Toms & Sons	698 2 0	738 7 6	710 4 0	763 16 0
Thos. H. Smerdon	650 0 0	745 0 0	810 0 0	930 0 0
Express Fan & Motor Co., Ltd.	639 0 0	—	685 0 0	—
F. & E. Pickering, 32, Goodge-street, W.1	*£623 0 0	585 0 0	*£620 10 0	583 0 0

(All of London.)

***London.**—Tenders accepted by H.M.O.W. for the week ending November 22:—

Sheffield, Western D.S.O.—alterations and extensions—Andrews Baldwin & Co., Ltd., Rawmarsh-road, Rotherham.

York S.S.O.—wood-block flooring—The Acme Flooring Co., River Bank, Barking.

Wordsworth Telephone Exchange — erection — Webster & Cannon, Aylesbury.

G.P.O., South—foundation work—John Mowlem & Co., Ltd., 41, Ebury Bridge-road, London, S.W.1.

Chelsea R.H.—installation of electric passenger lift—Wm. Wadsworth & Sons, Ltd., 72-4, Victoria-street, S.W.1.

Walsall Employment Exchange—steel casements—J. & A. Steane, Ltd., Markham-road Bournemouth.

Derby, Midland-road Branch Post Office—extensions—J. R. Ford & Weston, Ltd., Osmaston-road, Derby.

Queen Anne's Chambers—internal decorations—Decra, Ltd., Hanbury-road, Acton, W.3.

***London.**—The following works contracts have been placed by the War Office during the week ended November 20:—

Netley—artificers' works—W. Saunders & Sons, Southampton.

Catterick Camp—erection of R.A.O.C. workshops—G. Dougill & Sons, Darlington.

London.—Construction of a building at "The Lodge," Upper Hornsey Rise, for use as an electricity sub-station, for the Islington B.C.:—

F. R. Hipperson & Son	£2,812
Sir William Prescott & Sons, Ltd.	2,676
J. C. Mather & Son	2,525
Sherrington & Jinks, Ltd.	2,499
Stevens & Sons	2,464
J. Johnson	2,425
Brine & Spinks	2,224
E. Pollard & Co., Ltd.	2,193
Ebenezer King, Ltd.	2,189
W. O. Everitts, Ltd.	2,131
George Keetch & Sons	2,100
Canonbury Construction Co.	2,085
S. Shaw	2,068
A. E. Farr	2,065
Chas. Berger	1,995
*Pate, Ltd., Holmesdale-road, N.6	1,982

(All of London.)

London.—Alterations to the "Duke of Gloucester" public-house, Sydenham-road, for Messrs. Courage & Co., Ltd., Horselydown, S.E.1. Mr. F. M. Kirby, architect:—

*Bowyer & Sons, 74, Barry-road, S.E.22.

Loughborough.—48 cottages on the Ling Farm and Shelthorpe housing estates, for the T.C.:—

*J. L. Ford £15,736

Manchester.—Alterations and additions to their head offices, having frontages to Hanover-street and Balloon-street, for the Co-operative Wholesale Society, Ltd., Balloon-street. Architect's Department, Co-operative Wholesale Society, Ltd., 113, Corporation-street:—

*Building Department, C.W.S., Ltd., Manchester.

Marsden (Co. Durham).—Elementary school, for the E.C. Mr. F. Willey, F.R.I.B.A., County Architect, 34, Old Elvet, Durham:—

*W. D. Allison, Whitburn £6,778

Markinch.—Sewage, for the T.C. Messrs. Bruce & Proudfoot, civil engineers, 63, Nicol-street, Kirkcaldy:—

Sewage disposal and water supply improvements—*J. Ramsay, Allan-street, Leslie.

Water purification plant—*Bell Brothers (Manchester, 1927), Ltd., Denton, Manchester.

Newcastle-upon-Tyne.—Steel frame buildings for power station, at Dunston-on-Tyne, for the Newcastle-upon-Tyne Electric Supply Co., Ltd. Mr. C. Skipsey, joint secretary, Carliol House, Newcastle-upon-Tyne:—

*Dorman Long & Co., Ltd., Middlesbrough £128,940

Northfleet.—Sewage disposal works at Brookvale-farm, for the U.D.C. Mr. J. A. Mitchell, surveyor:—

E. D. Winn	£29,997 0 9
G. E. Wallis & Sons, Ltd., Maidstone	29,976 0 0
G. Bell & Sons, Ltd., Tottenham	28,968 0 0
Edwards & Chivers, Chatham	28,178 12 1
J. B. Lingham, Northfleet	26,606 14 2
A. Hardy & Co., Kingsway-avenue, Woking	26,138 0 0

Northampton.—Erection of the first portion of the new technical college, for the E.C. Secretary for Education, 4, St. Giles'-street:—

Courtney & Co., Belfast	£86,933
J. Guttridge & Sons, Ltd., Peterborough	85,254
W. Jellings, Peterborough	84,569
J. Hobson & Sons, Ltd., Nottingham	84,500
E. Green & Son, Northampton	84,060
W. Lovatt & Sons, Ltd., Wolverhampton	83,571
Hinkins & Frewin, Ltd., Oxford	83,469
J. Cracknell, Ltd., Peterborough	83,317
J. G. Gray, Coventry	82,870
J. G. Pullen & Sons, Ltd., Northampton	80,975
Bosworth & Lowe, Nottingham	80,536
Walter W. Webster, Guisborough	79,014
Northampton Co-operative Society, Ltd., Northampton	77,994
k. Moore & Son, Mansfield	77,887
H. P. Cross, Northampton	77,382
Henry Martin, Ltd., Northampton	76,880
H. M. Nowell, Ltd., Stockton-on-Tees	76,752
C. Adams & Co., Wellingborough	76,045
G. B. Heap, Northampton	75,565
A. Glenn & Sons, Ltd., Northampton	75,350

Northampton.—Two temporary lock-up shops in Bridge-street, for the Corporation:—

*W. E. Cockerill £677

Penrith.—Mass concrete reservoir, at Maidenhill, for the U.D.C. Mr. G. A. J. Edmundson, engineer and surveyor:—

*Bolton & Hayes, Manchester-road, Bolton.

Port Talbot.—30 houses in Cwmavon and the construction of roads and sewers, for the T.C.:—

*S. T. Rees, Port Talbot £11,086 8 1

Henderson
SLIDING
DOOR
GEAR
"TANGENT" LOCK-UP DOOR GEAR
Every modern builder uses "HENDERSON" Door Gear because—it is easy to understand, order and erect. Can be seen at work in every town & is fully GUARANTEED.
P.C. HENDERSON
LIMITED
TANGENT WORKS
BARKING · ESSEX

Peebleshire.—Laying of about 3,000 yds. of 4-in. and 5-in. iron pipe, and construction of 45,000 gallon reservoir and filter, with all their necessary equipment, at Stoneypath, for the West Linton District Committee of the C.C. Mr. J. Thomson, civil engineer, 3, Palmerston-place, Edinburgh:—

E. Walter & Son, West Linton	£3,334 13 10
J. M. Lithgow, West Linton	2,812 0 0
W. P. Cochrane, Crail	2,803 19 7
Fisher Brothers, Edinburgh	2,705 9 9
Cassey & Darroch, Stirling	2,667 4 3
William Jackson, Edinburgh	2,631 15 0
John Erskine, Dolphinton	2,492 15 2
W. & J. R. Watson, Ltd., Leith	2,404 5 0
*Mitchell Anderson & Co., 13, Rutland-square, Edinburgh	2,404 16 9½

Rhosse.—New mixed and infants' Council school, for the Glamorgan E.C. Mr. D. Pugh Jones, F.R.I.B.A., F.S.I., County Architect, County Hall, Cardiff:—

*J. Makin, Cardiff £16,182 17

Rotherham.—1½ miles of 9-in. glazed-ware pipe sewers, together with manholes, etc., in the parish of Whiston, for the R.D.C. Mr. A. E. Lant, engineer and surveyor:—

*Knights (Contractors), Ltd., 3, Cedar-road, Balby, Doncaster £3,066 8 11

Saddleworth.—6,300 lin. yards of cast-iron concrete and earthenware pipe sewers, and sewage disposal works consisting of detritus sedimentation, averaging and humus tanks, percolating filters, and other appurtenant works, for the Council. Messrs. D. Balfour & Son, engineers, 3, St. Nicholas-buildings, Newcastle-on-Tyne:—

*Edcaster, Ltd., Doncaster.

Sale.—Eight houses in Farmfield, off Green-lane, for the U.D.C. Messrs. Matley, Brotherton & Mills, architects, Court-chambers, Old Milligate, Manchester:—

*E. E. Coleman, Sale.

Scarborough.—Reinforced concrete bridge over the level crossing at Mere-lane, for the T.C.:—

*F. Whittaker & Co., Leeds £11,710

Sheffield.—Houses, for the T.C.:—

46 *houses, Manor scheme*—
*Maxfield Bros. £19,537 10

92 *houses, Shiregreen scheme*—
*W. Memmory 31,827 0

42 *houses, Shiregreen scheme*—
*J. Laver & Sons, Ltd. 16,026 0

Shrewsbury.—Painting of Porthill suspension bridge, for the Corporation. Mr. A. W. Ward, Borough Surveyor:—

*Willocks & Sons, Barker-street, Shrewsbury.

Slough.—Alterations and improvements to business premises in High-street. Mr. F. G. Sainsbury, L.R.I.B.A., architect, 154, Friar-street, Reading:—

H. D. Bowyer, Mackenzie-street, Slough.

Stourbridge.—Alterations and enlargement of Valley-road Council school, Lye, Stourbridge. Mr. A. Vernon Rowe, County Architect, 38, Foregate-street, Worcester. Quantities by Mr. Alfred W. Baylis, 118, Colmore-row, Birmingham:—

A. Wright, Blackheath, Birmingham	£15,190
J. Dallow & Son, Birmingham	14,700
W. T. Harmon, Stourbridge	14,600
Meredith & Hingley, Cradley Heath	14,491
Parsons & Morrin, Ltd., Birmingham	14,157
A. Simmonds, Stourbridge	13,995
W. Jackson, Birmingham	13,510
A. H. Guest, Ltd., Stourbridge	13,350
E. E. Jeavons & Co., Ltd., Tipton	13,294
A. J. Crump & Sons, Ltd., Dudley	13,272
T. W. Edwards & Sons, Stourbridge	13,248
Bridgewater Bros., Cradley Heath	13,133

Walsall.—For (1) junior mixed school for 400 children, new infants' school for 400 children; (2) enlargement of existing Chuckery schools to adapt same as senior boys' and girls' schools, for the C.B. Mr. R. Jeffries, architect and surveyor, Kingscourt, Bridge-street. Quantities by the architect:—

(1)	
J. Lees & Son, Darlaston	£28,500 0 0
W. B. and F. T. Archer, Birmingham	24,985 0 0
E. Crowder, Birmingham	24,777 0 0
W. H. James & Son, Sutton Coldfield	24,300 0 0
W. Kendrick & Sons, Ltd., Walsall	24,115 0 0
Sabine & Young, Brigg	24,079 14 3
Thompson & Arblaster, Walsall	24,000 0 0
J. R. Deacon, Walsall	23,940 0 0
Brockhurst & Wood, Walsall	23,799 0 0
H. W. Casey & Co., Walsall	23,792 0 0
Green & Bird, Hednesford	23,095 0 0
*J. & F. Wootton, Ltd., Bloxwich, Walsall	22,960 0 0
(2)	
J. Lees & Son, Darlaston	£9,200 0 0
W. B. and F. T. Archer, Birmingham	8,220 0 0
E. Crowder, Birmingham	8,077 0 0
W. Kendrick & Sons, Ltd., Walsall	7,999 0 0
H. W. Casey & Co., Walsall	7,876 16 2
W. H. James & Son, Sutton Coldfield	7,850 0 0
J. R. Deacon, Walsall	7,777 0 0
Green & Bird, Hednesford	7,751 0 0
Thompson & Arblaster, Walsall	7,750 0 0
J. & F. Wootton, Ltd., Bloxwich, Walsall	7,680 0 0
*Brockhurst & Wood, Walsall	7,659 0 0

Wallasey.—Extensions to the Oldershaw School, Valkyrie-road, Wallasey, for the T.C. Mr. R. Holt, F.R.I.B.A. (Messrs. Rees & Holt), architects, 64, Rodney-street, Liverpool:—

*Brown & Backhouse, Liverpool.

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Walsall.—Eight houses in Delves-road, for the Corporation. Mr. J. Taylor, Borough Surveyor:—

*Sabin & Young (per house) £390

Walton.—Additional central school, for the Surrey E.C.:—

*Scole & Son, Ltd., Richmond, Surrey £10,530

Watlington.—Alterations and additions to the Watlington House. Messrs. Wilcocks & Greenaway, F.R.I.B.A., architects, 11, Friar-street:—

E. C. Hughes, Albion Works, Wokingham.

Wayland.—Two houses at Great Ellingham, for the R.D.C. Mr. A. A. Gompertz, clerk, Watton, Norfolk:—

*S. Tennant & Sons, Watton £540

Wetherby.—Sewerage, parishes of Wetherby, Kirk Deighton, Micklethwaite, Collingham, Linton, East Keswick, Bardsley-cum-Rigton, and Scarcroft, for the R.D.C. Mr. F. J. Rodwell, A.M.I.C.E., engineer, 20, Park-row, Leeds:—

Contract No. 7—
*Parker & Sharp, Holgate-road, York £16,571

Contracts Nos. 2, 3, and 4—
*Elliott & Sons, Bishop Auckland ... 37,314

Wembley.—New primary school, College-road, Preston, Wembley, for the Middlesex C.C. Mr. W. T. Curtis, F.R.I.B.A., County Architect:—

J. Dorey & Co., Brentford	£17,042
A. & B. Hanson, Ltd., Southall	16,863
H. Knight & Son, Tottenham	16,828
C. J. Newby & Bros., Southgate	16,750
Albert Monk, Lower Edmonton	16,645
G. Challis & Co., Ltd., Brentford	16,529
Wm. Lacey, Hounslow	16,417
W. S. Try, Uxbridge	16,370
Fassenidge & Son, Ltd., Uxbridge	16,187
G. Godson & Sons, Ltd., Kilburn-lane	16,140
‡Y. J. Lovell & Son, Gerrard's Cross	15,650

Weybridge.—22 houses on the Weybridge housing site:—

*W. G. Tarrant, Ltd., Byfleet £9,489

Wharfedale.—12 non-parlour houses on a site in Occupation-lane, Bramhope, for the R.D.C. Mr. Harry Riding, surveyor. Quantities by the surveyor:—

Bricklayer and joiner—†J. Newsome Walker, Ltd., Horsforth, Leeds.
Plumber—†R. & S. Stott, Yeadon, Leeds.
Plasterer—†Edward Walsh & Son, Guiseley, Leeds.
Slater—†E. E. Kesteven, Leeds.
Electrician—†H. H. Cassé, Bradford.
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Weybridge.—Rebuilding of the "Duke of York" public-house in Queen's-road, for Messrs. Hodgsons Kingston Brewery, Ltd.:—

*W. G. Tarrant, Ltd., Byfleet.

Woodbridge.—Four cottages at Otley, for the R.D.C. Mr. D. Jenkinson, surveyor:—

*W. Wager & Son, Witham, Essex ... £1,250

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